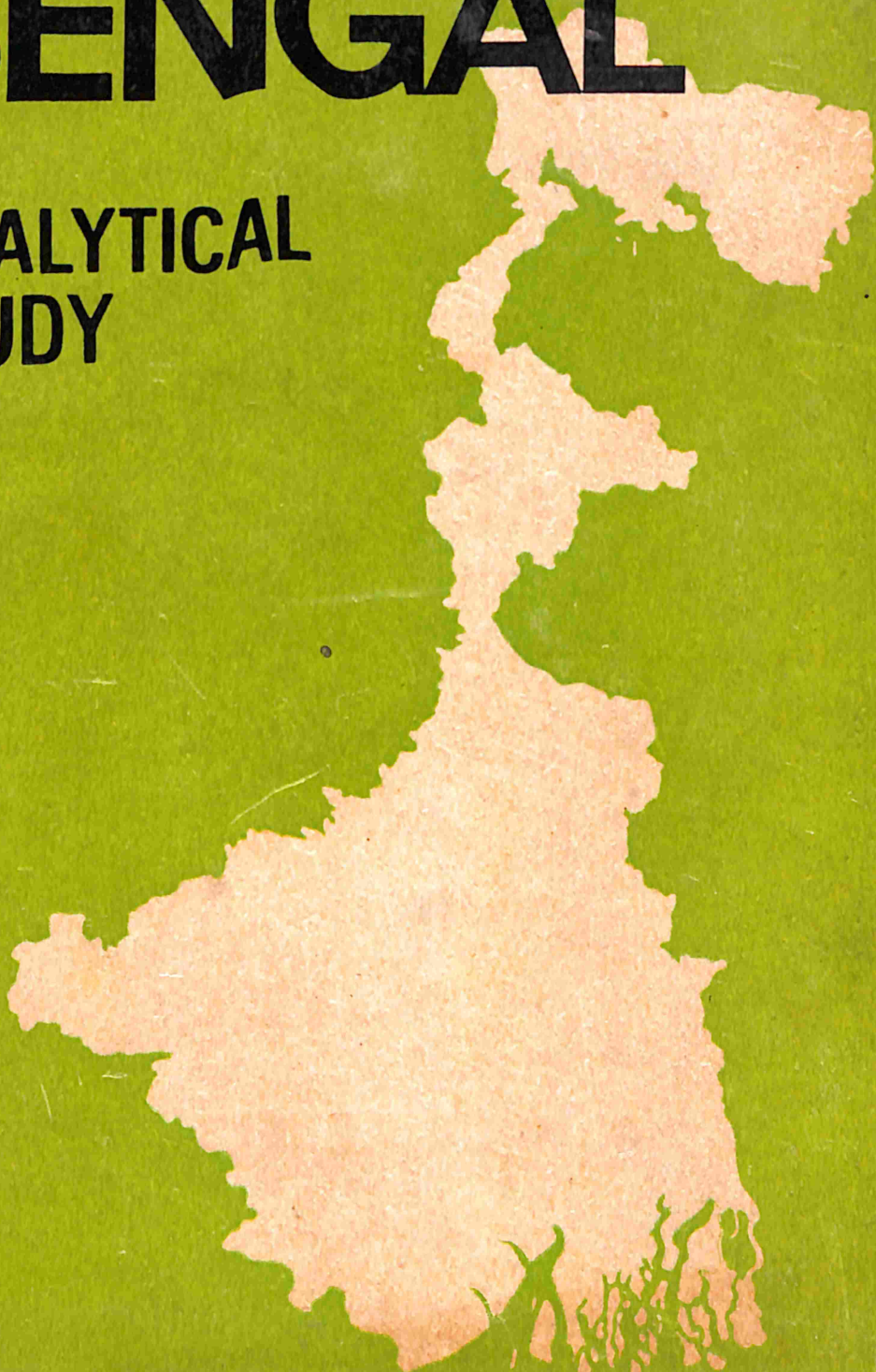


WEST BENGAL

**AN
ANALYTICAL
STUDY**

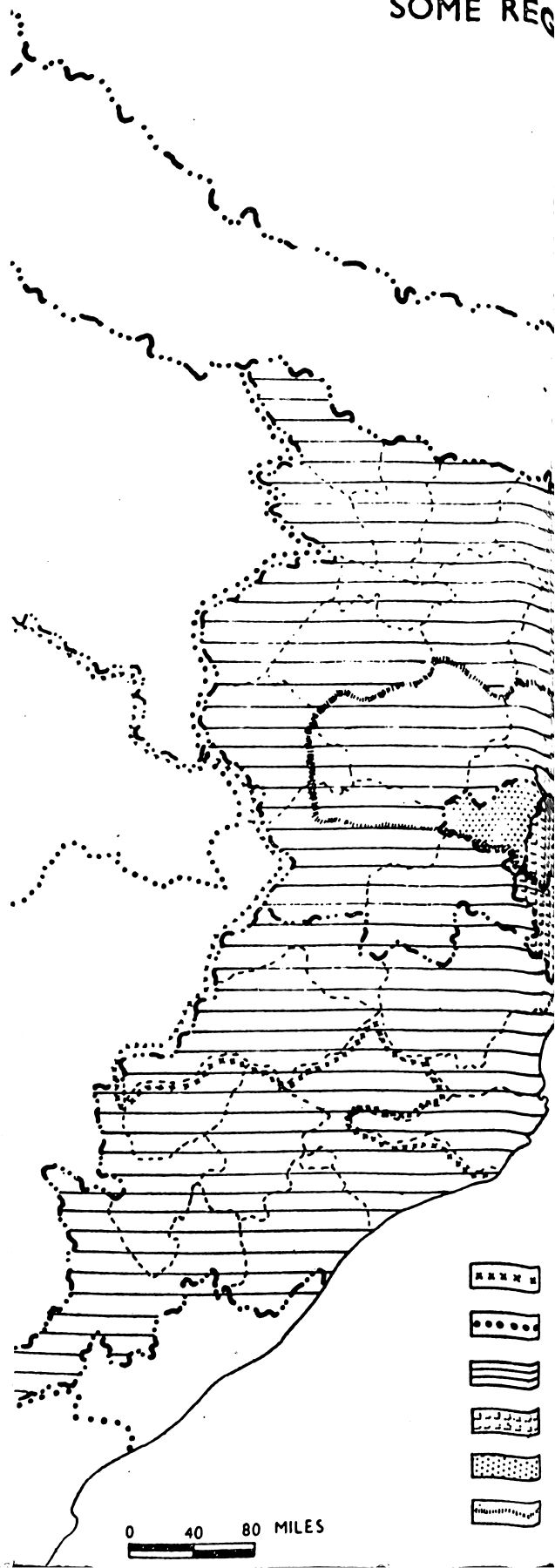


THE BENGAL CHAMBER OF COMMERCE AND INDUSTRY

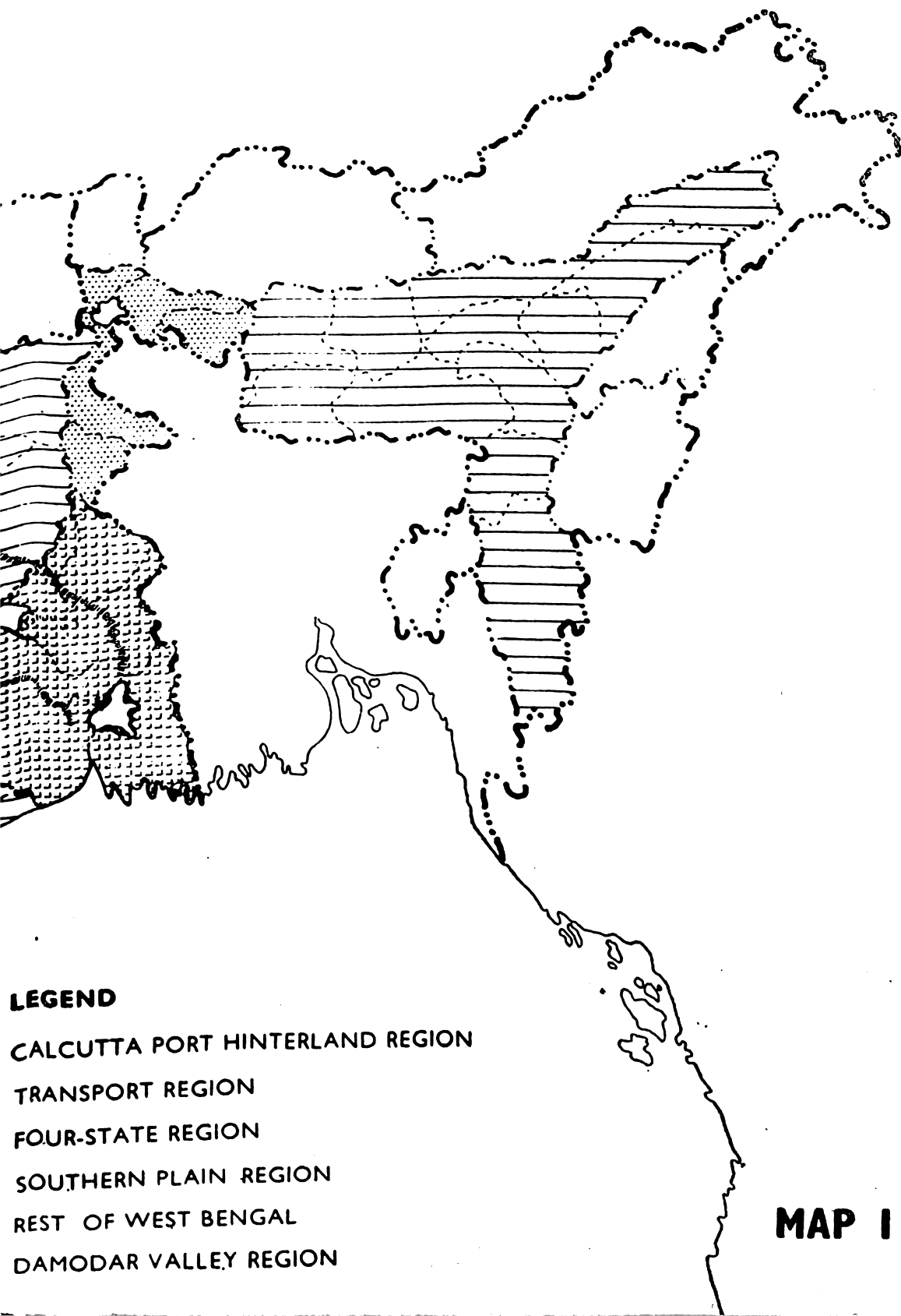
The problems of West Bengal are complex and their solution has become a matter of national importance. For, West Bengal with its strategic geo-political situation, immense natural resources and talented people constitutes a vital and indispensable segment of our Republic. The Bengal Chamber of Commerce and Industry therefore decided to sponsor this study.

This monograph, produced by a specially commissioned team of researchers does not attempt to work out a final solution of the problems of West Bengal. All that the study has tried to do is to examine some of the causes that have led to the present state of affairs in West Bengal and to put them in proper perspective. Such an analysis based on objective data will, it is hoped, contribute to an understanding of the problems and create an atmosphere in which solutions can be worked out and a serious effort for the regeneration of this State can begin.

Rs. 30.00



ONAL DELINEATIONS IN EASTERN INDIA



LEGEND

- CALCUTTA PORT HINTERLAND REGION
- TRANSPORT REGION
- FOUR-STATE REGION
- SOUTHERN PLAIN REGION
- REST OF WEST BENGAL
- DAMODAR VALLEY REGION

MAP I



WEST BENGAL

An Analytical Study

Sponsored by
The Bengal Chamber of Commerce & Industry
Calcutta



OXFORD & IBH PUBLISHING CO.

New Delhi

Bombay

Calcutta

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PREFACE

It is hardly necessary to offer any justification for the publication of this study. The problems of West Bengal are so complex and their solution has become a matter of such national importance that a study of this nature has long been overdue. The Bengal Chamber of Commerce & Industry therefore decided to sponsor this study.

A team of research workers was entrusted with the task of preparing the study. As it was felt desirable to bring it out as quickly as possible the authors of the study were asked to base themselves as far as possible on existing material rather than undertake original research. It was felt that even a compilation which brought together in one place material hitherto not easily accessible would be extremely useful.

As mentioned in the concluding chapter, this publication does not attempt to work out a final solution of the problems of West Bengal. All that the study has tried to do is to examine some of the causes that have led to the present state of affairs in West Bengal and to put them in proper perspective. Such an analysis based on objective data will, it is hoped, contribute to an understanding of the problems affecting this State and create an atmosphere in which solutions can be worked out and a serious effort for the regeneration of this State can begin. To the extent that it is able to remove some of the popular misconceptions about the nature of the State's problems and encourage a dispassionate examination of the various alternatives open before the country to bring about a revival, this publication will have served the object of its sponsors.

The Chamber would like to acknowledge its debt to the various agencies of the Government of India, the Government of West Bengal, and the CMPO who have furnished information and data for this study and to thank them for the assistance rendered ; it would also record its appreciation of the assistance rendered by the Public Relations Department of Indian Oxygen Ltd. in co-ordinating the work of this study.

The Bengal Chamber of Commerce & Industry wishes to make it clear that while this publication has been sponsored by it and while every care has been taken to make it as objective as possible, the presentation is that of the authors of this study and does not necessarily reflect the views of the Chamber.

A handwritten signature in black ink, appearing to read 'A. K. Sen', with a large, looping flourish at the end.

(A. K. Sen)
President

January 1971

The Bengal Chamber of Commerce & Industry

BACKGROUND

How important is West Bengal for the rest of India? A look at some of the facts and figures below will provide the answer.

More than 15 per cent of the country's factories are located in this State and they account for over 21 per cent of the total gross output (ex-factory value).

About one-third of the country's coal requirements are met by this State which also enjoys a monopoly in jute textile, so essential for packaging in the context of India's growing industrial and agricultural output. West Bengal accounts for about one-half of the total engineering capacity of the country and a large part of chemical and pharmaceutical industries. This State contributes the largest share among all the States in the country's foreign exchange earnings through, mainly, its exports of jute products and about a quarter of the total exports of tea. Besides a share in the vital aluminium industry, West Bengal also accounts for about a third of the country's steel capacity.

The total number of jointstock companies at work in West Bengal, as on March 31, 1969, was 9,136 with a paid up capital of Rs. 640 crores, representing about one-third of the national total.

The economic importance of this State is further revealed by the fact that in 1967, it absorbed Rs. 619 crores of scheduled bank credit out of a national total of Rs. 2,734 crores, or 22.5 per cent.

Because of its geographical location, West Bengal provides facilities for a large volume of international and inter-State transport. Before its recent decline, the port of Calcutta used to handle nearly 40 per cent of the country's total foreign trade, thus generating a huge flow between the port and the entire Eastern-India hinterland. According to an estimate, Calcutta's hinterland extends to an area of 236,682 square miles comprising, besides West Bengal, Assam, Bihar, Manipur, Tripura, Nagaland and part of Orissa and U. P. Population in this zone, according to the 1961 Census, totalled about 150 million. The major in-

dustrial centres located in the hinterland of Calcutta-Haldia port complex comprise, besides the Calcutta conurbation, the following : Kharagpur, Durgapur, Asansol, Chittaranjan, Jharia-Dhanbad-Sindri, Jamshedpur, Ranchi, Bokaro, Barauni, Rourkela and Noonmati. This area represents a concentration of engineering, jute textiles, fertilisers, iron and steel, tea, heavy machinery, cement, locomotive, coal and oil refineries.

The vast network of railways, air and sea communications spreading out in all directions from Calcutta connects the cities and important economic centres in the eastern region of the country. Indeed, the international airport at Dum Dum is a vital communication link on the world transport map.

The port-hinterland nexus apart, West Bengal aids other States by providing employment to a large number of migrants from all parts of the country. According to the 1961 Census, during the decade 1951-61, a total of 374,000 migrants from the other States came to West Bengal.

Statewise Distribution of Migrants into West Bengal—1951-1961

<i>States</i>	<i>No. of persons</i>
Bihar	183,000
U.P.	71,000
Orissa	33,000
Assam	5,000
West India	24,000
South India	16,000
Other parts of the country	42,000
Total :	374,000

Inclusive of the migrants in the earlier period the people from other States constitute a majority in the employed population of Calcutta. According to a survey conducted by the Calcutta University in 1957-58, more than half of the total earners, 54 per cent to be exact, in the city of Calcutta belonged to non-Bengali sections of the population. The proportions of non-Bengali earners in different occupations, as revealed by the survey, is given below :

Executive	..	30 per cent
Technical/Professional	..	21.5 per cent
Ministerial	..	15.0 per cent
Trading	..	59.0 per cent
Skilled manual labour	..	50.5 per cent
Unskilled manual labour	..	74.0 per cent

Indeed, in the industrial employment in the State as a whole, the migrants from other States account for a larger proportion than the Bengalis. The Census in 1961 revealed that 79 per cent of the jute textile workers came from other States. The proportion in other industries were : 54 per cent in cotton textile ; 49 per cent in engineering ; 54 per cent in iron and steel and 73 per cent in paper. The combined share of non-Bengali workers in the total factory employment came to 61 per cent. According to an estimation : "the city (of Calcutta) sends out annually about Rs. 280 million through very small postal remittances : the savings of small men without bank accounts sweating away to keep up their families alive in the villages of every State and Territory". (Ashok Mitra, Calcutta—India's City, New Age, Calcutta, 1963.)

Defence potential of its vital industrial and transport resources and its own strategic situation apart, the 22 mile wide corridor at the northern end of West Bengal provides the sole land-link of the country with the sensitive north-east region comprising North-East Frontier Agency (NEFA), Nagaland, Manipur, Tripura and Assam, which account for over 2,000 miles of the country's international boundaries—with East Pakistan, Burma and the Tibet Region of China.

West Bengal's vicissitudes, therefore, concern the entire country. Her problems are the problems of the nation and in facing the ordeals this State is presently passing through, the people of West Bengal look to the rest of India not only for sympathy and understanding but for active succour and support.

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1. Physical Features

GEOGRAPHY has lent a hand in investing West Bengal with characteristics, strategic and otherwise, that are unique in many ways. It has common boundaries with Nepal, East Pakistan and the two States that have special treaty relations with this country—Sikkim and Bhutan. The sharp wedge of the Tibet Region of China which reaches the Chumbi valley at the junction of Sikkim and Bhutan stops just a few miles to the north of West Bengal's boundary.

The special strategic importance of this State also arises from the fact that the narrow neck which connects its northernmost region with the main body of West Bengal provides the only land corridor between the Northeast zone comprising Assam, Nagaland, Manipur, Tripura and NEFA on the one hand and the rest of the country, on the other.

West Bengal with an area of 87,675.91 square kilometres (34,214 square miles) forms three per cent of India's land area, but supports, according to 1966 figures, a population of over 41 million or about eight per cent of the national total.

The land area within the boundaries of the State of West Bengal may be classified into three broad physiographic divisions. The first represented by extensions of the Chhotanagpur plateau in the western bulge of the State which comprise the district of Purulia and the contiguous parts of Midnapore, Burdwan and Birbhum districts. The second consists of the mountainous northern zone comprising parts of the Darjeeling, Jalpaiguri and Cooch Behar districts, and the third consists of the rest of the State lying in the Gangetic plains with rich alluvial soils.

The first division is a formation made up of peneplain old rocks, most of which are below the 500 feet contour. But there are some which rise to over 1000 feet and stand out as majestic monadnocks. These rocky plains gradually descend eastward to merge with the higher slopes of alluvial lands. The soils are thin and have little or no

profile development. This area has a mean annual rainfall below 60 inches.

The second division—the Himalayan zone—rises abruptly from the plains of North Bengal to attain great heights within a short distance of the foothills. High terrain, steep gradients, heavy rains, averaging from 80 to 160 inches in places, and torrential streams make this region extremely susceptible to soil erosion and landslides.

The remaining physiographic region of this State comprises the alluvial plains and delta of the Gangetic system. The land is flat and lends itself to classification mainly on the basis of drainage characteristics. The southern part consists of Gangetic plains and the moribund delta. This latter area includes Nadia district. Old distributary streams are choked with silt and the rivers themselves flow on old levees with hardly enough water to inundate the countryside even during the monsoon season. The swampy area at the back lying between the natural levees is poorly drained. In the mature delta, which covers the northern half of 24-Parganas, the rivers have enough vigour to overflow and deposit some silt, although their increasing salinity is an indication of their gradual deterioration. The southern half of 24-Parganas is occupied by an active delta system reaching 60 to 80 miles inland from the head of the Bay of Bengal.

West Bengal is criss-crossed by a large number of rivers. The Ganga passes through the centre and its distributary the Hooghly, runs through the full length of the southern part of the State. Other large rivers in the South are the Damodar, the Ajoy, the Rupnarayan and the Kasai. In the north, the Teesta, the Torsa and the Mahananda rivers drain the Himalayan area.

Rainfall in the State as a whole is fairly high. The average is about 70 inches, of which over 50 inches falls in the monsoon months from June to September. There are wide regional variations in rainfall from more than 200 inches in parts of the Himalayan region to less than 50 inches in parts of the Bankura district. The heavy seasonal concentration of rainfall results in both droughts and floods.

There are four main types of soils in the State, namely, the brown podzolic soils of the hill region, chiefly in Darjeeling and Jalpaiguri districts; the red acidic lateric soils of the western parts of the State, comprising the districts of Purulia, Bankura and Birbhum and parts of the district of Midnapore and Burdwan; the deltaic and saline soils of the mangrove areas of the southernmost parts of 24-Parganas district; and the alluvial soils in the rest of the State including the Gangetic delta lands in the south and the Gangetic plain in the north.

The foothills of Darjeeling slowly descend into the *tarai* (locally called Morang) of Siliguri sub-division which is a narrow strip of the North Bengal plain, criss-crossed by many fast-flowing streams, produc-

ing coarse porous *bhabar* soil, excellent for growing tea. Darjeeling district is longitudinally cut into two unequal halves by the Teesta gorge with Darjeeling and Kurseong in the West and Kalimpong in the East.

According to soil and drainage characteristics, West Bengal plains just below the Himalayan highlands may be sub-divided into a number of distinct areas, such as :

(a) *The North Bengal plain (Duars) or sub-montane tarai, comprising the districts of Jalpaiguri and Cooch Behar.* Its upper areas are still under forest, mainly, *sal*. Much of the tall grass and reed jungle has been cleared for rice, jute, tobacco, and most important of all, tea. Soils are much coarser than in the south, often sandy or even gravelly.

(b) *Northern para-delta and Barind, consisting of West Dinajpur and eastern part of Malda district.* Soils are varied in this area, consisting, as they do, of patches of old alluvium, clayey silts, sandy clays and loams. In the heart of this area lies Barind, a large island or terrace of older quasilateritic alluvium. The Barind still carries some scrub and degraded remnant forest which is being rapidly swept away by colonization. Apart from rice and jute, other important crops of this area are barley, wheat, pulses and oilseeds.

(c) *The Gangetic delta comprising the districts to the east of the Bhagirathi and Hooghly (Murshidabad, Nadia, Calcutta and 24-Parganas).* Of this tract, Murshidabad, and Nadia form the 'moribund delta'. The northern half of 24-Parganas including Calcutta down to a rough transverse line through Basirhat, Canning and Diamond Harbour constitutes the 'mature delta'. The territory, south of this transverse line is the 'active delta'.

As the Bhagirathi enters the State beyond the Rajmahal Hills it bisects the district of Murshidabad. On the right bank of the Bhagirathi, the land wears the alluvial apron of the *Rarh*, old alluvium and red soil. The western tract of the district is dissected by streams which descend from the uplands : the more important ones being the Mayurakshi and Dwarka. The eastern tract is criss-crossed by the meanders of the Jalangi.

A small part of Nadia also falls on the right bank of the Bhagirathi. Murshidabad and Nadia on the east bank of the river are a true example of the moribund delta, in which all the rivers, Jalangi, Churni, Bhairab, Ichhamati and Mathabhanga form a network of drainage, but are also liable to be ponded back when the flood level of the Bhagirathi is high. Calcutta is an enclave of 24-Parganas whose low level and salt lakes cause grave problems of run off during early

monsoon storms. The northern and eastern parts of 24-Parganas are mature delta, but in the Sundarbans the delta is still very much active.

(d) *The Damodar delta, consisting of Hooghly, Howrah and Midnapore.* This tract has been formed by the hydraulic interactions of the Damodar and the Hooghly. The southeastern margins of Howrah and the mouth of the Rupnarayan are still 'active', delta which continues along the coastline of Midnapore. In this tract, some of the former channels of the Damodar had lost their head waters by silting or by shifts of the river and the area was, as a result, reduced to a region of silted and stagnant channels. But the network of Damodar canals has recently resuscitated it.

Besides the above, there are the West Bengal uplands, consisting of Purulia, Bankura, Burdwan and Birbhum, known as Rarh. The chief features of Purulia which is an extension of Ranchi Peneplains are the Baghmundi Hills in the West, the Jaridih sandstone hills in the northwest, the Panchet in the northeast and the Manbazar hills in the southwest. The district is drained eastward by the Dalkishore and the Kasai. East of the Subarnarekha, the plateau gradually sinks into the deltaic alluvium. Apart from some oilseeds, the sole crop of the district is rice.

In the *Rarh* proper, Burdwan is drained mainly by the Ajoy and the Damodar. Bankura is drained west-east mainly by the Dalkishore and Kasai. The Dalkishore is joined by the Silai at Ghatal in Midnapore, from which point downward it is called the Rupnarayan. The Kasai joins the Kalighai in Tamluk sub-division of Midnapore to form the Haldi River. The Subarnarekha enters at Gopiballavpur in the same district and passes through Nayagram out to Orissa. The Gunamani, Bansloi, Pagla, Brahmani, Dwarika and Mayurakshi drain the Birbhum district before they fall into the Bhagirathi. The main crop of all the three districts is rice, but they now grow appreciable quantities of sugarcane, oilseeds and wheat.

Forests cover 4,535 square miles or nearly 13 per cent of the total area of the State, comprising the following three main areas :

- (a) The hills and tarai regions in the north ;
- (b) The forest area in the extension of the Chhotanagpur hills in the western part of the State ; and
- (c) The mangrove areas on the sea shores in the extreme south.

The following table gives the latest available statistics about land utilization in West Bengal.

Land Utilization in West Bengal 1964-65

Total land area = 87,68,000 hectares of which :

		<i>Per cent</i>
(1) Net area sown	..	62.9
(2) Current fallows	..	3.1
(3) Forests	..	12.5
(4) Area not available for cultivation..		14.6
(5) Other uncultivated lands excluding current fallows	..	6.9
Total :		100.0

Reference : CMPO, Regional Planning for West Bengal; Govt. of India, Census of India, Vol. I, Part I—A (i); Govt. of West Bengal, Economic Review, 1969-70.

2. *The Growth of Industry*

Once two hundred years ago
the trader came meek and tame
where his timid foot first halted
there he stayed.....

Thus the midday halt of Charnock
more's the pity
grew a city.

As the fungus sprouts chaotic
from its bed
so it spread—

Chance-directed, chance-erected,
laid and built,
on the silt.

Palace, byre, hovel—
poverty and pride
side by side,

And, above the packed
and pestilential town
Death looked down.

—*Rudyard Kipling*

Kipling's oft-quoted characterisation of the founding of the city of Calcutta as 'chance-directed, chance-erected' is hardly in accord with the historical truth, even though the last stanza may be regarded

as a prophetic prevision of the present state of affairs. The selection of the location for the headquarters of English operations in Eastern India was a deliberate and, judged by the criteria of the time, wise choice. Moreover, the 'midday halt' of Job Charnock in 1690 from which dates the unbroken English connection with the three villages of Sutanati, Govindpur and Kalikata which later blossomed into the great city of Calcutta, was not his first introduction to the place.

Four years earlier, in 1686, after having ransacked the township of Hooghly in course of a conflict with the Moghul power, Job Charnock, then Agent of the East India Company in Bengal, had retired with his retinue down the river to Sutanati. Even after the reconciliation that followed soon, the English paid a second visit to the village next year to "recruit provision" and to "spin out the monsoon". "In selecting Sutanati as the place for the chief settlement in Bengal," says W. K. Firminger in his famous *Historical Introduction to the Bengal Portion of the 'Fifth Report'*, "Job Charnock made his choice deliberately and well.....Garden Reach, a little to the south, had in goneby days been the great anchoring place of the stately Portuguese ships,.....Higher up the river the great ships could only go at extreme peril. On three sides the place was secured by the river, the salt lakes, and the ancient channel of the Adiganga....." (Vol. I, Cambray & Co., Calcutta, 1917, p. lxiv).

How in less than 10 years from their permanent settlement at Sutanati the English came to acquire the Zamindary right over the three villages on the stipulation of paying an annual revenue of Rs. 1,194 annas 14 and pies 5 and how from that they advanced towards the founding of the Indian Empire are now part of ancient history.

In 1696 the East India Company had been granted by the Moghul Emperor the permission to build a fort at Calcutta. But, as Dr. Radha Kumud Mukherjee points out, "it was not, however, the building of the fortress but the acquisition in 1698 by the Company of the tenure in terms of Moghul Revenue Law of the three villages of Calcutta, Sutanati and Govindpur that really laid the foundation of British rule in Bengal". (Govt. of Bengal, *Report of the Land Revenue (Floud) Commission, Bengal*, Vol. II, p. 175). Firminger also stresses this aspect when he says: "By the acquisition of these three villages the East India Company obtained for the first time a legal position within the Mughal Empire and thus brought into existence a working theory in the development of which the acceptance of the *Dewani* is the final logical completion." (*Op. Cit.*, p. lxv.)

The extension and consolidation of British domination, after the first footholds had been laid, found its reflection in the wider area of economic activities, besides pure trade, for which the Company had received its charter.

In 1790, there were 15 agency houses in Calcutta. "They controlled the country's trade, financed indigo and sugar manufacture, covered the government contracts, ran three banks and four insurance companies at Calcutta and speculated in public securities."

Indigo plantations soon came to occupy a pivotal position in these operations. In 1800, forty thousand maunds of indigo were exported from Calcutta to London; in 1815, the exports trebled to one hundred and eighteen thousand maunds. According to an estimate there were about 400 indigo factories in Bengal. These 'Neel Kuthis' (the indigo factories) soon became notorious for their oppression of the peasantry of Bengal. But that is another story.

Saltpetre was another important item of export. Salt was manufactured as a government monopoly all along the coastal belt of Bengal from Tamluk in Midnapore to Chittagong, averaging an annual output of 28 lakh maunds. The salt from Bengal went to Assam, Nepal, Bhutan, Sikkim and possibly Tibet. (See N. K. Sinha, ed., *The History of Bengal, 1757-1905*, University of Calcutta, 1967.)

All this was facilitated by the easy accessibility of the hinterland by river routes, based on the two main river systems, viz., the Ganga and the Brahmaputra. Almost all the other rivers of Bengal were either feeders or distributaries of these two.

The advent of steam navigation and steam locomotion in the second half of the 19th century brought about a qualitative improvement in the transport system and laid the basis of the modern economic development in the country, of which Bengal became the harbinger.

"The coming of the railways to India", says Jawaharlal Nehru, "brought the industrial age on its positive side.....In 1860 the duty on imported machinery.....was removed, and largescale industry began to develop, chiefly with British capital. First came the jute industry of Bengal....." (J. Nehru, *Discovery of India*, Meridian Books Ltd., London, 1956, p. 332.)

Indeed, the introduction of the railways was the culmination of a process which had started at least two decades earlier. The Charter Act of 1833 which finally abolished the East India Company's trade monopoly opened a new outlet for British enterprise in India. By another Act in the same year Parliament authorised the Governor-General in Council to exercise wider powers over the provinces. Simultaneously, a commission was appointed to inquire into possibility of a single code of laws for the entire country. Another significant development of the year was the opening of the Red Sea route by the P & O Company's steamships, which brought India two months nearer to England.

"Bengal Chamber of Commerce" says Prof. N. K. Sinha, "was founded in 1834. It became the spearhead of European capital in

India. European capitalist enterprise began in silk, indigo, tea and coffee. The agency houses gave place to the managing agency system. This opened India to the full impact of the Industrial Revolution in England. Transit duties were abolished in 1835..... Thus was created a huge Indian market for British goods. There was henceforth free import of surplus capital from England. Larger and cheaper banking facilities for European business could be organised in India. The system of production was completely geared to the needs of industrialised Britain....." (N. K. Sinha's *Economic Background of the Century in Studies in the Bengal Renaissance*, National Council of Education of Bengal, Jadavpur, 1958, p. 4.)

The initial momentum of development was obviously supplied by the migration of British capital into India. Something like £ 150 million of British capital was invested in India, according to Jenks, between 1854 and 1869. The flow continued at the rate of £ 5 million a year during the seventies of the 19th century. Of this, the greater part went into railway construction. But, an estimated £ 20 million was invested in jute mills, tea plantations, banks, etc. (See Jenks, *Migration of British Capital*.)

Beginning with 20 miles in 1853, railway route mileage increased to 2,507 in 1863 and thereafter continued to double in about every 10 years till 1893 when it stood at 18,459. Of this, about 900 miles was within Bengal in 1872 and at the end of the decade it reached over 1,300 miles. This expansion of railway route mileage led to significant changes in the pattern of Bengal's internal trade as well as port-hinterland relations. One of the first results of this development was the growth of modern large-scale industry in this region.

Development of coal mining immediately followed the introduction of railways. Although the first organised unit in this sphere—the Bengal Coal Company—was set up in 1844, it was really during the sixties and seventies of the last century that coal mining assumed significant proportions. Equitable Coal Company was formed in 1863, New Beerbhoom in 1873; Bengal-Nagpur, East Indian, Katras Jheriah, Ondal Coal, etc., started functioning during the closing years of the 19th century. The number of workers employed in coal mines was about 31,000 in 1894; this rose to about 75,000 in 1903.

The first modern jute mill—Baranagar Jute Factory—was set up in 1872, followed by Budge Budge and Howrah Mills in the next two years. By the end of the century there were 18,000 powerlooms at work in 18 jute mills with a complement of over one lakh workers.

In 1874, Barakar Iron Works was established on the coalfields. This was acquired by Bengal Steel and Iron Works in 1889. Annual production of pig iron was about 35,000 tons at the end of the last century.

In 1870, Bally Mills was set up for the manufacture of paper, followed by Titagarh Paper Mills in 1882. The third unit—Bengal Paper Mills—was set up at Raniganj in 1889 and Imperial Paper Mills at Kankinara was established in 1892. The last soon merged with Titagarh Paper Mills.

The Calcutta Electric Supply Corporation incorporated in 1897 gave a strong impetus to the acceleration of industrial development in this area by making available cheap and easy power. The Bengal Chemical and Pharmaceutical Works (BCPW), a monument to the spirit of Swadeshi and industrialisation represented by Acharya P. C. Ray, was formed in 1892.

The growth of Calcutta as the commercial hub of Eastern India was epitomised by the proliferation of the tea plantation companies with their headquarters in this city. Starting with five in the sixties, the total number of tea companies based in Calcutta rose to 58 by the year 1900. The number of workers employed in tea plantations in Assam rose to over 4 lakhs and 6 lakhs in 1890 and 1900 respectively.

In this formative period, some Bengali entrepreneurs also appeared on the scene. Prince Dwarka Nath Tagore, grandfather of Poet Rabindranath, may be regarded as the first Indian to venture into modern industry. In the early thirties of the preceding century, he entered into partnership with some Englishmen to form Carr, Tagore and Company which came to own a number of indigo factories and sugar plantations. In 1837 this firm purchased Chinakuri Mine from M/s. Alexander and Co. and in 1843 the mining units of Carr, Tagore and Company merged with those of Gilmore, Homfray & Company to form the Bengal Coal Company mentioned earlier. Dwarka Nath was also connected as a director with the Calcutta Steam Tug Association which purchased the ship, *Forbes*, in 1836. Another Bengali pioneer was Kishorilal Mukherjee of Howrah who founded the firm, Shibpur Iron Works, in 1867 to undertake the manufacture of castings, railings, hand pumps and small machine parts. The Bhagyakul family started its East Bengal River Steam Service Limited in 1897. The firms of C. K. Sen and Company, Botokristo Paul and Company, and P. M. Bagchi which survive today, were also set up during the middle nineties of the last century.

After this initial beginning, industrial development of the country continued to move ahead, even though erratically, under its own steam.

Though beset with many a problem and confronted with various vicissitudes, modern industry took significant strides as the 20th century advanced. And, in the process of this progress, Bengal continued to stand at the head of other provinces of British India. On the eve of World War II, in 1939, Bengal accounted for 28.7 per cent of the total number of workers employed in factories (in British Indian provinces and Indian States) compared to 23.0 per cent in Bombay, 9.7 per cent

in Madras, 8.0 per cent in Uttar Pradesh, 4.8 per cent in Bihar and 3.9 per cent in Punjab (See Govt. of India, *Location of Industry*, 1945).

In essence, West Bengal was able to retain her position as the most industrialised province (despite the partition) on the morrow of Independence, although the total number of factory workers employed in 1948 was 737,469 for (composite) Bombay as against 678,701 for West Bengal. As much as 26,285 of the total numerical lead of 58,759 enjoyed by Bombay came from the seasonal employment in the cotton ginning and baling factories located in that province. Moreover, even if in numerical terms, Bombay, with the perennial factory employment of 623,207 was slightly ahead of West Bengal with 601,772, qualitatively speaking, the latter still enjoyed a measure of superiority in terms of the relative preponderance of industries with a higher technological basis. This can be seen from the following comparative table:

Workers Employed in Factories in 1948

	<i>Bombay</i>	<i>West Bengal</i>
<i>Textiles</i>	442,411	345,010
<i>Engineering</i>	54,798	107,495
of which		
electrical engineering	1,927	6,081
ship building and engineering	5,180	19,049
railway workshops	530	12,193
general engineering	18,272	47,315
<i>Minerals and Metals</i>	6,941	29,940
of which		
iron and steel	..	25,039
<i>Food, Drink and Tobacco</i>	28,957	27,091
<i>Chemicals, Dyes, etc.</i>	36,030	24,626
of which		
chemicals	2,200	7,674
dyeing and bleaching	12,273	..
<i>Paper and Printing</i>	16,899	18,859
of which		
paper mills	1,626	9,586
<i>Wood, Stone and Glass</i>	21,588	17,161
<i>Skins and Hides</i>	1,872	8,676
of which		
leather and shoes		443
<i>Miscellaneous</i>	13,711	16,056
Total	623,207	601,772

Source : Govt. of India, *The Indian Labour Year Book*, 1948-49, pp. 372-78.

It should be clear from the above that the industrial structure in West Bengal was better balanced than Bombay's in 1948. While textiles accounted for 70.9 per cent of the total factory employment in Bombay, the proportion for West Bengal was much lower at 57.3 per cent. The latter held a superior position compared to the former in the heavier industries, such as engineering and minerals and metals. Bombay's lead in chemical, dyes, etc. was somewhat deceptive, as it was entirely due to the dyeing and bleaching units of the cotton textile industry. In chemicals, properly so-called, and paints, West Bengal was significantly ahead of Bombay. It is also noteworthy that out of the nearly 17,000 workers in paper and printing industries in Bombay, paper mills accounted for even less than 10 per cent of the employment; the proportion in West Bengal was 50 per cent.

It should be further noted that the figures for Bombay in the table above represent the employment in the erstwhile composite unit of Maharashtra (excluding the part in the former Central Province and Berar) and Gujarat. Hence, in relation to the present day Maharashtra State, the lead enjoyed by West Bengal in 1948 must have been significantly higher.

What happened to this advantageous industrial position of West Bengal—and why? An attempt will be made to answer these questions in the chapters that follow.

3. *Cultural Resurgence*

Frowns from sticklers notwithstanding, the term 'renaissance' has been widely used to denote and depict the wide-fronted cultural resurgence that started to remould the customs and consciousness of Calcutta and its immediate neighbourhood from the second quarter of the 19th century and sent its invigorating waves all over the country. For one thing, the Bengal 'renaissance,' unlike its European prototype, was based not on a rediscovery of its own classical heritage, but on the startled discovery of the boundless horizon of Western intellectual attainments. It should, however, be noted that the greatest exponents of this new enlightenment were not for a total rejection of the extremely rich heritage of this ancient land, but sought to achieve the modernisation of social and intellectual life through a harmonious blending of the indigenous heritage with the scientific and humanistic culture of the West. Nevertheless, the essential stimulus for this cultural resurgence was provided by the impact of the West—"the impact of a dynamic society, of a 'modern' consciousness, on a static society wedded to medieval habits of thought which, however sophisticated and advanced in its own way, could not progress because of inherent limitations". (Nehru, *Op. cit.*, p. 289.)

Chronologically spanned at the extremes by the two stalwarts of gigantic stature—Raja Rammohan Roy and Poet Rabindranath Tagore—this process of resurgence broadly covered about a century and was sustained by numerous streams of social and cultural endeavours, some of which were initiated by broad-minded Europeans.

Raja Rammohan Roy (1772-1833) is universally recognised as the initiator of this fervent churning. "Deeply versed in Indian thought and philosophy," Nehru writes of the Raja, "a scholar in Sanskrit, Persian and Arabic, he was a product of the mixed Hindu-Moslem culture.....He learnt English but this was not enough; he learnt Greek, Latin and Hebrew.....He was also attracted by science

and technical aspects of western civilization.... Even in these early days he was in favour of the scientific method, and he wrote to the Governor-General emphasizing the need for education in 'mathematics, natural philosophy, chemistry, anatomy and other useful sciences.'

"He was more than a scholar and an investigator; he was a reformer above all,.....he tried to reform that (Hindu) faith and rid it of abuses and the evil practices that had become associated with it. It was largely because of his agitation for the abolition of *suttee* that the British Government prohibited it." (Nehru, *Ibid.* pp. 315-6).

Though his greatest contribution to the modernisation of this country was the founding of the *Brahmo Samaj*—a movement for social and religious reforms which dominated Hindu intellectual life in Bengal till the early decades of the present century—Rammohan's activities covered a far wider field embracing journalism, education and political rights of the Indians.

He edited a number of periodicals—in Bengali, Persian and English—through which he took up cudgels against every manifestation of obscurantism and injustice.

He was connected with the initiative that led to the foundation of the Hindu College in 1817 as also the Anglo-Hindu School, Vedanta College and the activities of the Scottish Educational Mission.

Rammohan took a leading part in the constitutional agitation of the time. He drew up a memorial to the Supreme Court and a petition to the King-in-Council against the restriction on press imposed by the Press Ordinance of 1823. He protested against the discrimination involved in the Jury Act of 1827. He was prominent in the agitation for the abolition of the East India Company's trading rights, etc. He also undertook the advocacy of the rights and privileges of the Moghul Emperor in Delhi.

Further, he was the first Indian to concern himself with the progressive and reforms movement in other countries of the world—whether it was the French Revolution of 1830 or the Reforms Bill in British Parliament.

The seeds of inquiry and enlightenment sown by Rammohan started flowering and yielding fruits only after modern education had spread somewhat.

Hindu College, we have noted, was founded in Calcutta in January 1817. Next year, Serampore College was set up by the missionaries, Carey, Marshman and Ward, in the Danish settlement of Serampore. In 1824, came the foundation of the Sanskrit College for the encouragement of the study of Sanskrit language and literature and also the cultivation of European literature and science. The General Assembly's Institution which after various changes became the Scottish Church College was established in 1830.

During this time came the famous Minute of Macaulay which was accepted by the Government headed by Lord Bentinck in 1835. Henceforth, "imparting to the Indians a knowledge of English literature and science" became the official policy.

Hooghly Mohsin College was founded in 1836—financed by the funds bequeathed by Haji Muhammad Mohsin.

The Calcutta Medical College was established in 1835 and an Engineering College in 1856.

The Bethune College for Girls was established in 1849.

In 1857, came the foundation of the University of Calcutta to guide and coordinate the already branched-out distributaries of enlightenment.

The first recognisable impact of Western education in Bengal was manifested in the emergence of that remarkable group of intellectuals collectively labelled as Young Bengal or Derozians after their friend, philosopher and guide—Henry Louis Vivian Derozio (1809-1831). A prodigy by any standard, Derozio was a Eurasian, of Portuguese-Indian parentage, who regarded himself as a son of the soil as can be seen from the following composition of his :

My country ! in thy days of glory past
A beauteous halo circled round thy brow,
And worshipped as a deity thou wast,
Where is that glory, where that reverence now ?

Appointed a lecturer in Hindu College when still in his teens, he inflamed his pupils with a passion for rational thinking and a fearless conformity between thought and action. One of Derozio's disciples, Ramgopal Ghosh, echoed his master's precepts in the succinct motto : "He who will not reason is a bigot ; he who cannot is a fool, and he who does not is a slave."

The first contact with the movement for unfettered free-thinking acted like a heady wine and set the impressionable youngmen to many demonstrative acts of defiance against the established norms and social mores. This soon called forth a conservative back-lash, as a result of which Derozio got his sack from the Hindu College post. Soon thereafter, at the young age of 23, he passed away. But his band of devoted disciples proved indomitable. Many of them became famous names in the history of 19th century Bengal and continued to uphold the banner of rationalism through various forms of social activity like journalism, debates and constitutional agitation, notably the following : Ramgopal Ghosh (1815-1865), Rasik Krishna Mallik (1814-1858), Peary Chand Mitra (1814-1883), Dakshinaranjan Mukherjee (1812-1887), Ramtanu Lahiri (1813-1898) and Krishnamohan Bandopadhyaya (1813-1885).

One of the later Derozians who has left an indelible mark on modern Bengal is Michael Madhusudan Dutta (1824-73), despite a rather wayward life—a result of his association with the iconoclastic rebels. In his early life he had become so much enamoured of Western literature and culture that he sought, body and soul, to become a westerner himself. He embraced Christianity as a step to this attainment. After some mediocre successes in English poetry, Michael, as he is popularly known in Bengal, tried his hand in Bengali literature and achieved almost instantaneous success.

Michael started his literary career in Bengali language as a dramatist, but his *magnum opus* was the epic *Meghnad-badh-kavya* which brought about a revolution in Bengali poetry in a double sense, in technique as well as in content. Though for raw materials of this work (as of many others), Dutta depended on the ancient classics, the final product that emerged from his pen was soaked in the spirit of the great Western classics—the works of Homer, Virgil, Tasso, Dante, and, of the later poets, Milton.

“To poetic technique,” says the noted critic, Dr. Sashi Bhusan Das Gupta, “the most epochmaking contribution made by Madhusudan was the introduction of the blank verse built closely on the model of Milton. He became painfully conscious of the monotony of the much used *payar* metre and the time-honoured custom of riming, which was like fetters restraining artificially the free movement of the spirit of poesy. The introduction of blank verse in Bengali was thus stimulated no doubt by a spirit of revolt, but some inspiration, we think, came also from the demand of a heroic age—the age that marked the awakening of our national consciousness....” (*Studies in Bengal Renaissance*, *Op. cit.*, pp. 263-4).

Michael also transgressed the spirit of the ancient epic, *Ramayana*, when he made *Meghnad* his hero. The subject of his work, *Meghnad-badh-kavya* is the “story of the valiant fight of Meghnad (or *Indrajit*), son of Ravan who fell in defence of his homeland, Lanka (Ceylon) at the hands of Lakshmana through a low and dastardly intrigue to which the ‘Scoundrel Bibhisan’ (Madhusudan referred to him in disdain) was a party”. *Ramayana*, it should be noted, highlights the exploits of Rama and his brother Lakshmana, believed to be the human incarnations of heavenly deities, against the demon, *Ravan*, and his tribe.

Among the contemporaries of Madhusudan were some other poets of lesser brilliance like Rangalal Bandopadhyaya, Hemchandra Bando-padhyaya and Navinchandra Sen, whose work, poems, ballads and epics, sought to enkindle the flame of patriotism and soon became household possessions in every educated home in Bengal. *Palashir Yuddha* (The Battle of Plassey) by Navinchandra was a particularly

popular work which sang of the glories of united Hindu-Muslim resistance to the British intruder.

Another contemporary of Madhusudan and his solicitous benefactor, was the stern puritanic Brahmin, Pandit Iswar Chandra Vidyasagar (1820-91) educationist, journalist and social reformer, all rolled into one. He also earned national respect by his proud but dignified rebuff to many instances of petty arrogance on the part of some of the British officials of the time.

Vidyasagar who came from a priestly family of rural Midnapore and acquired his education in Calcutta under conditions of grinding poverty rose to become the Principal of the Sanskrit College, then one of the two foremost educational institutions in the city. Besides helping the spread of education by various means, "Vidyasagar revived the splendid tradition of social reform blunted since Rammohan's death and raised once again issues which deeply moved society....."

"He raised his powerful voice against child marriage as early as 1850 and was campaigning against polygamy in 1871-73. But his most memorable stand was in 1855 when he caused a sensation by his outspoken advocacy of widow-marriage in the teeth of the deepest social prejudice....."

If Madhusudan is the path-blazer for modern Bengali poetry, Bankimchandra Chatterjee (1838-94) is the father of modern Bengali prose. One of the first graduates of the Calcutta University, Bankim has been described as "the greatest figure of the second phase of the Bengal Renaissance as Rammohan Roy was of the first. In this phase Bengal did not merely look beyond the seas to Western science and philosophy, she wanted also to look back at her own past heritage. But this movement was more comprehensive than a mere resurrection of ancient learning. It aimed at a synthesis between the East and the West and also to interpret the ancient scriptures from a rational and humanist point of view".

Novelist, essayist and journalist, and the creator of a superbly chaste but relatively simple prose style, Bankim was the author of the patriotic hymn, *Bande Mataram*, which has resounded in million-throated cries in the course of the country's freedom struggle. He has been called the prophet of nationalism in Bengali literature, although his works are somewhat coloured by a streak of Hindu revivalism.

A contemporary of Bankim and a friend of his, Dinabandhu Mitra, was the author of the drama *Neel Darpan* (A Mirror on Indigo) which, published in 1860, created literary and political history. The play portraying the sufferings of the indigo cultivators was translated into English by Michael Madhusudan Dutta and published under the name of an English clergyman, Reverend Long. It became the cause of a

legal prosecution in which Long was convicted and sentenced to pay a fine or suffer imprisonment in default. A leading Derozian, Kaliprasanna Sinha (himself a leading literateur) paid the fine on the spot to secure the release of the English clergyman who was prepared to suffer for the Indian cause.

The drama, *Neel Darpan*, played no mean role in popularising the cause of the suffering peasant and ultimately securing the reform of the rigours of indigo cultivation.

This brings us to the emergence of the modern theatre in Calcutta. There were occasional amateur performances of Bengali plays based on adaptations from Shakespeare or classical Sanskrit dramas during the fifties of the last century. *Kulin Kula Sarvasva*, an original Bengali satire on the evils of polygamy among the top stratum of the Hindu society, was even staged in 1857. But it was from the sixties and with the plays from the pens of Madhusudan and Dinabandhu that Bengali stage emerged as a powerful force. With the foundation of the first public theatre—the National Theatre—in 1872 and the emergence of that gifted actor-director Girish Chandra Ghosh, the stage became not only an important form of cultural expression but also an active agent of social reform and patriotic inspiration.

The growing urge for national awakening and modernisation did not spare even that rarefied atmosphere which pervades the world of fine arts. Encouraged by the Englishman, E. B. Havell, Principal of the Government Art School, Abanindranath Tagore, a nephew of the poet Rabindranath, evolved a new "style which may be described as a fusion between the occidental and oriental modes without any detriment to the character of Indian art tradition". A new school of modern Indian art was created as exemplified in the work of Abanindranath, his brother Gaganendranath and of some of their gifted disciples such as Nandalal Bose, Asit Kumar Haldar, Mukul Dey, Surendranath Kar and Kshitindranath Majumdar.

These manysided social and cultural movements were all the time drawing a part of their sustenance from the deep-going movements for religious reforms, then active in the field.

We have noted earlier that the father of Bengal renaissance, Raja Rammohan Roy, had initiated a new religious movement—the *Brahmo Samaj* movement—for purging Hindu society of some of its most vulgar and corrupt practices. As always happens with social phenomena, this movement soon came to lose its elan and entered a phase of stagnation. Conservative Hindu revivalism also soon reared its head and started combating the impact of the West.

During this period the *Brahmo Samaj* movement found a new leader in Keshubchandra Sen (1838-1884) who not only sought to tone up the movement by ridding it of the caste discrimination and other retrograde

features, but also succeeded in spreading the *Samaj* to new areas—in Bengal districts and other provinces of India.

Keshubchandra had drawn around him a band of talented young-men with missionary zeal with whose support and cooperation he spearheaded a powerful movement of social and religious radicalism. With the passage of time the march of radicalism, however, outstripped its leader and a group of Keshubchandra's followers repudiated him to espouse a more militant movement which went far beyond purely religious boundaries and advocated "universal liberation of all peoples under the banner of democratic republicanism".

Another gigantic figure of the late 19th century was Swami Vivekananda (1863-1902) who infused a new spirit into the traditional Hindu society by his militant and dynamic call to action against the accumulated lethargy. Vivekananda represents a curious synthesis of contradictory impulses. A brilliant intellectual, deeply versed in western thought, he succumbed to the magnetic charm of another outstanding Bengali of the period, Ramkrishna Paramahansa. Completely unsophisticated but with a burning faith, Ramkrishna, as he came to be known, infused a new spirit of religious revival in Bengal. From him Vivekananda imbibed a mystic faith in the Hindu pantheon. But a scholar in Vedantic philosophy, he spread the message of a more sophisticated order—self-realisation through action, informed with knowledge. A religious reformer, he devoted most of his time and labour to bring solace and relief to the suffering and afflicted people. The Ramkrishna Mission, founded by him, is the foremost voluntary service organisation in the country.

All these trends and currents of the resurgent 19th century Bengal ultimately converged in the towering personality of Rabindranath Tagore, who may be said to represent the epitome of Bengal renaissance.

This brief account of the cultural resurgence of Bengal is not intended to be a history of the Renaissance in Bengal or even a complete coverage of the various cultural and literary movements that grew in this part of the country in the 19th century. The only justification for including this Chapter in a work of this nature is that it reveals by contrast the poignancy of the tragedy of Bengal today. The leadership that Bengal provided at one time in the cultural, intellectual and political fields still lingers in the memory of the people of this State and fills their cup of bitterness to the brim. In the words of Jawaharlal Nehru—"A number of very remarkable men rose in Bengal in the nineteenth century, who gave the lead to the rest of India in cultural and political matters, and out of whose efforts the new nationalist movement ultimately took shape" (J. Nehru, *Op. cit.*, p. 314). As one surveys the West Bengal scene today one cannot but

lament the passing away of this glorious phase and hope that a people with such rich traditions will soon come out of the morass into which they have drifted and take their place in the front ranks of the Indian nation.

4. *The Impact of Partition*

THE *Swadeshi Andolan*, or the struggle for Independence, had received the biggest fillip in Bengal from the movement against the partition of the province decreed in 1905 by the then Viceroy of India, Lord Curzon. It is indeed an irony of fate that when independence finally came, Bengal had to face a partition. The Western part came to India, Eastern to the new state of Pakistan. As a result of the partition, the most fertile, and therefore, the principal foodgrains-producing, part of the Gangetic delta has gone to Pakistan and West Bengal has got only a narrow strip of land to the east of the Ganges. "This area is the least fertile of the whole delta. It is criss-crossed by dead or dying channels that, except during the rains, do not provide any navigable route connecting the numerous villages in the tract."

Another immediate effect of the partition was that the northernmost part of the State was geographically cut off from the main body. It was only after the transfer to West Bengal of the Kishanganj subdivision of the Purnea district of Bihar in 1956 that a narrow connecting corridor was provided.

Then the system of waterways linking the port of Calcutta with its Assam hinterland was disrupted as the river route between West Bengal and North-East India passed through East Pakistan. Since the Indo-Pak War of 1965, this line of river communication has remained totally suspended. For a long time after Independence the only means of overland communication between North Bengal and Assam on the one hand and lower West Bengal including the metropolitan city of Calcutta, on the other, was provided by a metre-gauge railway line that swerved sharply to the right into Bihar before turning South into West Bengal and that too after ferry crossing.

Partition has also resulted in the loss of the richest and most extensive fisheries. This has put fish which is the most favoured item on the menu of a Bengali household beyond the reach of the vast

majority. Apart from its tremendous psychological impact, this has also reduced their intake of organic protein.

Another upsetting result of the partition was that West Bengal's most important industry at the time, jute textiles, was deprived of its raw material, i.e., jute fibre, which was grown mostly in the territory now in East Pakistan. Though over the years cultivation of jute in the Indian Union has made remarkable progress, the output is still inadequate, especially in terms of quality.

The division of the territory of Bengal, as a result of which the larger part of the Bengali speaking population found itself in Pakistan, had crippling effects on the Bengali publishing and film industries, from which they have yet to recover.

However grave the impact of these factors on the life and economy of this State, it pales into insignificance when compared to the social and economic dislocation created by the continuous influx of refugees from across the borders. The table below shows the influx, year by year, from 1946 to the middle of July 1970. It will be seen that the number has reached the massive total of over four million. Indeed, these figures are somewhat of an under-estimate as not all the people who have migrated to or permanently settled in West Bengal following the partition have registered themselves as refugees. Some of the migrant families which had some members already settled in West Bengal prior to the partition are known to have bypassed the registration process. Again, many families from East Bengal who had at the time of partition been residing on a temporary basis in the western part of Bengal and who would in the normal course have returned to their original homes decided to settle in West Bengal and thus added to the pressure of population in this region.

Influx of Refugees

<i>Year</i>	<i>No. of persons</i>
1946	44,624
1947	3,77,899
1948	4,19,018
1949	2,75,592
1950	9,25,185
1951	4,77,186
1952	
1953	60,647
1954	1,05,850
1955	2,11,573
1956	2,46,840
1957	9,133

1958	4,285
1959	5,539
1960	8,629
1961	10,095
1962	12,804
1963	14,601
1964	6,67,125
1965	1,59,989
1966	4,214
1967	6,895
1968	6,589
1969	11,068
1970 (upto 15.7.70)	1,40,000
	42,03,378

Source : Statistical Officer, Office of the Refugee Rehabilitation Commissioner, Govt. of West Bengal.

It will be seen from the table above that while a trickle has always persisted, the influx has in some years assumed the dimensions of a torrent, for example, in the years 1948, 1950, 1951 and 1964.

According to official information, about 4.53 lakhs of immigrants have been rehabilitated outside West Bengal up-to-date and 22.8 lakhs within the State. In other words, 14.65 lakhs or about one third of the total influx still await rehabilitation.

An important feature that distinguishes the refugee problem in West Bengal from that of the other partitioned province of British India, namely, Punjab is that while in the case of the latter, there is a provision for the payment of compensation to the refugees for property left by them in Pakistan, there is no such provision for their counterparts in Bengal. The Compensation Act, 1954, excluded the East Pakistan refugees from its purview on the ground that under the Nehru-Liaquat Pact of 1950, they were legally entitled to claim their properties in East Pakistan. But this is little more than a legal fiction. It has been abundantly clear from very beginning that Pakistan had no intention of honouring its commitment.

Public opinion in this country, and abroad, is perhaps not quite fully acquainted with the real state of affairs with regard to the refugee population that migrated from East Pakistan. Impressed by the successful rehabilitation of the somewhat larger number of refugees from West Pakistan and shocked by the miserable, sub-human condition of a large section of their counterparts from East Pakistan, observers often ascribe the difference to some lethargy and lack of efforts,

characteristic of the Bengali people. Local peculiarities apart, the fact is that this difference in the turn of events in the east and west stems largely from the nature and provision of the governmental measures for the rehabilitation of the refugees from the two wings of Pakistan. The contrast between the policies pursued by the Union Government in regard to the migrants from West Pakistan and East Pakistan respectively is very succinctly portrayed by a leading Delhi-based journalist. Referring to the West Pakistan refugees, he says, "The amount of land and other properties left in India by Muslims migrating to Pakistan are smaller than those left in Pakistan by the refugees from West Pakistan. Yet, these are very considerable.

"In the compensation pool there were no less than six million acres of land, converted into three million standard acres, about 700,000 houses in villages, and 287,000 houses, shops and other properties in urban areas. Besides these, the Government spent Rs. 65 crores to build houses and shops and put these into the compensation pool.

"All this has been distributed among the West Pakistan refugees against claims for properties lost by them through partition. A total of 1,063,000 West Pakistan refugee families or almost all of them have got compensation in these forms or in cash."

With regard to the other section of the refugees, i. e. those from East Pakistan, he continues :

"If the Government did even a fraction of this for the East Pakistan refugees, their problem would have ceased to exist. What the Government has in fact done is to keep them barely alive with assistance which, until 1964, was restricted to only 700,000 people. Some more people have got assistance in subsequent years, but their number is not large. It should be noted that about two million of these refugees have not sought any Government help. They can surely be considered to have rehabilitated themselves on their own initiative. Most of those who have got help for land or business or professions or for building houses have got this in the form of loans which have to be repaid.

"Even though it is considered by the Government that, because of the continuing influx, rehabilitation of East Pakistan refugees poses a much more difficult problem than that of the refugees from West Pakistan, the Government's greater concern for the latter group is shown by the expenditure incurred by the Rehabilitation Ministry on Establishment, that is, to maintain officers and employees and run offices. Till 1969-70 the expenditure on this account was Rs. 3.23 cores for the West Pakistan refugees and Rs. 2.85 crores for the East Pakistan refugees.

"Until 1960, the work for the East Pakistan refugees seems to have hardly begun, the expenditure on establishment up to that year for

them being only Rs. 67 lakhs compared with Rs. 2.20 crores for the West Pakistan refugees. In addition to the compensation paid to the West Pakistan refugees, the Government has so far spent Rs. 205 crores in cash; compared with this, the expenditure under all accounts for the East Pakistan refugees is Rs. 303 crores." (Ranajit Roy in *Hindustan Standard*, Calcutta, July 17, 1970.)

This large mass of uprooted humanity, a considerable part of which has yet to rehabilitate itself properly, has imposed an unbearable burden on the already overstrained resources of this truncated State. Since about a third of the total influx that remained within West Bengal preferred to hang on to the area now referred to as the Calcutta Metropolitan district, it added to the tremendous pressure already existing in this region and proved to be the last straw on the camel's back. "Forced to flee their homes in the east following the partition of Bengal", says the Calcutta Metropolitan Planning Organisation (CMPO), "many came to live in the bustees of the city and added to the competition for jobs, for places in school and hospital beds. Land prices and house rents soared as people—old residents, migrants and refugees alike—hunted for places to live. Squalid, pathetic refugee huts crowded Sealdah railway station and the pavement outside, and ramshackle makeshift markets appeared on the footpaths as the refugee sought in petty trade a bare means of subsistence. Squatters' colonies sprang up through the CMD (Calcutta Metropolitan District), 149 of which after a decade of Government effort at rehabilitation, are still in existence, containing more than 26,000 refugee households. And despite diligent efforts on the part of some refugee colonies which have built schools and other community facilities of their own, they are not yet a real part of the city." (CMPO, *Basic Development Plan, 1966-1986*, p. 13.)

The CMPO continues, "The suburbs closest to Calcutta—North and South Dum Dum, Kamarhati, Panihati, Garden Reach and the South Suburban area—have almost overnight become substantial communities. And within the city itself the fastest growth has occurred in the low lying, unsewered, poorly drained areas in Tangra, Tapsia and Kasba, along the eastern fringes of the city bordering its pestilent marshes of the Salt Lakes and in the wards of Tollygunge in the extreme south. On the outskirts of both Calcutta and Howrah, even low land liable to periodic floods, areas without sewerage or drainage facilities, with poor quality ground water supplies, and served by inadequate transportation facilities to link them to the central city areas, are beginning to show spectacular increases in market value as the search intensifies for living space..." (*Ibid.*, p. 16)

What this means in terms of human misery is beyond description. Some glimpses into the plight of sections, of refugees, unable to find even means of sub-human existence in the squatters' colonies, referred

to in the CMPO document, can be had from the following :

"It is frankly unbelievable, but true, that for more than eight years up to 1956 nearly five hundred refugee families lived on the platforms and lobbies of Sealdah station (Calcutta's second railway station). In 1956 they were moved to two premises both hardly suitable for human habitation. Two hundred and fortyfour families were moved to Indralok (Indrapuri) Studio premises in Tollygunge, and two hundred and seventeen families to the godown of a jute mill in Cossipore (both premises located within the Calcutta Metropolitan area). They were left there for another ten years." (C. R. Irani, *Bengal—The Communist Challenge*, Lalvani Publishing House, Bombay, 1968, p. 48.)

Indeed, there are numerous other communities of refugees who have undergone and have been undergoing a far worse suffering.

The influx of the large number of displaced persons into the highly congested metropolitan area has a number of significant sociological implications, the most important of which arises from the relatively high incidence of literacy among the refugees. "One thing", says the report of a Socio-Economic Survey of the city conducted by the University of Calcutta, "that emerges from a close examination of the data relating to the displaced migrants is that most of them who are now found among the city's population belonged to the so-called middle class section of population. One is the fact of the prevalence of higher education among the displaced population. In fact, the percentage of illiteracy is the lowest among the displaced migrants—only about 15 to 16 p. c. as compared to 32 to 36 p. c. among the ordinary migrants and to as high as 29 to 32 p. c. among the original residents. The percentage of illiteracy among young persons belonging to the age group, 5-14, is as low as 7 p. c. among displaced migrant males as against 35 p. c. among the two other sections of the population. 30 to 31 p. c. of the displaced migrants have received school education below the Matriculation standard whereas the ratio is only 18 to 22 p. c. among the residents and only about 13 to 18 p. c. among ordinary migrants. Some thirteen per cent of them are Matriculates or undergraduates as against 9 to 10 p. c. of both the residents and original migrants. Thus the average educational standard of the displaced migrants is definitely higher than that of even residents of the city, to say nothing of other migrants". (S. N. Sen, *The City of Calcutta*, Bookland Private Ltd., Calcutta, p. 224.)

This better educated and, therefore, more articulate mass forced by circumstances into utterly depressed and suffocating conditions of living have added to the already high accumulation of the combustible material in this extremely over-crowded city and its environs. Much of the present unsettling conditions in the Calcutta Metropolitan District owes its origin to this legacy of the partition of Bengal.

5. *Economic Developments Since Independence*

As a result of the partition, which came shortly after the severe famine that ravaged Bengal only four years earlier, the economy of West Bengal, indeed its entire social fabric, was on the verge of a collapse. It has to be remembered also that the ordeal of World War II when this area had to serve as the advance base for the Allied war machine in South East Asia also strained the economy of this region severely. Piecemeal efforts, which had started right on the morrow of independence, to check the decline and disintegration of the State gathered momentum as the country as a whole was launched on a course of planned development. Though reconstruction never succeeded in breaking even with the continuous intensification of the crisis-forces generated within this truncated State, the dimensions of the developmental work, considered in isolation from the needs or potentialities, were by no means unimpressive.

Between 1951 and 1969, incomes originating from organised factory establishments nearly trebled from Rs. 103 crores to Rs. 305 crores.

Agriculture, though much poorer in performance compared with the advanced States, for the first time, overcame the tendency of decline, noted in the preceding decades, and achieved an annual growth rate of about 2 per cent.

A number of major steps were taken to provide the infra-structural foundation for advances in agriculture and industry.

In all this, the state played a leading role and provided the impetus to the growth of the private sector in many ways.

Since independence the total development expenditure incurred by the State totals Rs. 684.70 crores. This includes Rs. 112.13 crores as West Bengal's share of investment in the Damodar Valley Project during this period. More than 56 per cent of the total expenditure or Rs. 384.61 crores was made on productive development schemes,

including the DVC investment. The balance of Rs. 300.09 crores was spent on welfare schemes.

Development Expenditure of the State Government

In lakhs of Rupees

	1947-48 (from 15th August 1947 to 31st March 1948)	1948-49 to 1950-51	1951-52 to 1955-56 (First Plan)	1956-57 to 1960-61 (Second Plan)	1961-62 to 1965-66 (Third Plan)	1966-67 to 1968-69 (Annual Plan)	Fourth Plan Revised 1969-70	Total (2) to (8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Productive Development Schemes								
Expenditure—								
Mayurakshi Reservoir Project	8	273	1038	325	66	7	20	1737
Kangsabati Reservoir Project	--	—	—	490	977	1025	467	2959
Development of State Roads	9	555	1212	1405	2183	1045	294	6703
Road Transport Schemes	—	122	163	188	92	42	6	613
Cokeoven, Gas Grid and Power Plant Project	—	—	—	1934	(a)1412	(a)	(a)	3346
Other Schemes	5	138	545	1966	5069	2969	1198	11890
	22	1088	2958	6308	9799	5088	1985	27248
Welfare Schemes								
Expenditure	152	1022	3756	5765	10943	6514	1857	30009
Total	174	2110	6714	12073	20742	11602	3842	57257
Damodar Valley Project—								
West Bengal's share of expenditure	—	691	4229	3243	2236	554	260	11213

(a) Provisions since 1963-64 are made under "Loans to Durgapur Project Ltd".

Besides, investments in various Central Government Projects in West Bengal during this period amount to Rs. 403.3 crores or 13.3% of the total investment (gross block) of Rs. 3044.4 crores made in all States. Of this Rs. 341.4 crores or more than 84% was invested in the Durgapur Steel Plant of Hindustan Steel. The figures relate to March 31, 1968 and excludes the amount spent on Farakka and Haldia Projects.

**Investment in Central Government Undertakings
in West Bengal**

	(Rs. crores)
Hindustan Steel, Durgapur	341.4
Mining & Allied Machinery Corpn.	30.6
Fertilizer Corporation	10.4
Hindustan Cables	6.0
National Instruments	4.4
Central Inland Water Transport	2.0
Garden Reach Workshops Ltd.	2.7
Hindustan Steel Works Construction	1.8
Rehabilitation Industries	1.3
National Small Industries Corpn.	1.2
Oil & Natural Gas Commission	1.1
Central Fisheries	0.2
Hindustan Aeronautics	0.2
	403.3

The installed electrical power generating capacity in West Bengal increased at a rate of 16.2 per cent per annum from 751.6 kW in 1961-62 to 1,592.1 kW in 1966-67.

The main power schemes of the State are :

Jaldhaka Hydro-Electric Scheme, Bulasun Hydro-Electric Scheme, Kharagpur-Midnapore Electrification Scheme, Durgapur-Malda Transmission Scheme, Suburban Electrification Scheme and Howrah-Hooghly Electrification Scheme.

Between 1951 and 1965, the area under irrigation increased by more than 30 per cent from 1,129.33 thousand hectares to 1,478.28 thousand hectares.

Area Irrigated by Different Sources

(In thousand hectares)

<i>Sources</i>	<i>1951-52</i>	<i>1964-65</i>
Government canal	170.35	545.39
Private canal	282.92	395.30
Tank	379.89	333.91
Well	12.12	16.55
Other sources	284.05	187.13
Total :	1,129.33	1,478.28

About 26 per cent of the total cropped area in the State was irrigated in 1965-66, against 19.5 per cent for the country as a whole.

Besides the DVC, an inter-State project, West Bengal has two major irrigation projects—Mayurakshi Reservoir Project and Kangsabati Reservoir Project.

By the end of 1956, West Bengal had 22,500 km of roads, inclusive of 1,120 km of national highways. Within two years nearly 1,920 km of State roads and 160 km of national highways were completed. Following this period some 60 km of roads were added annually.

Stretches of four national highways extend to West Bengal : (1) Calcutta-Delhi—245 km, (2) Calcutta-Bombay-Madras—145 km, (3) Bihar-Assam—291 km, (4) Siliguri-Gangtok—56 km. Besides, two roads confined within this State are also included in the schedule of national highways for their strategic importance. They are : Calcutta-Siliguri—328 km and Calcutta-Bongaon—69 km.

The most important achievement of West Bengal during the past era of planned development, however, was the birth of a new growth centre at Durgapur. The main industrial units located here are : Durgapur Steel Plant, Alloy Steel Plant, Mining & Allied Machinery Manufacturing Corporation, Ophthalmic Glass Project, Durgapur Project (Cokeovens), Durgapur Chemicals and a Fertilizer Factory. Around those principal projects a number of private sector enterprises has come up in this area. A thermal power station for supplying electricity to the industrial establishments and townships in Durgapur has been set up by the State Government.

The second most vital growth centre that is coming up in the State is at Haldia. Around a port and an oil refinery, a number of chemical and basic industries are to be developed in this region. There is also a proposal to promote food and agro-industries in Haldia industrial complex.

Damodar Valley Corporation : Set up on the model of the Tennessee Valley Authority in the United States, it was the first multi-purpose river valley scheme to be implemented in India. Sponsored jointly by the Centre and the States of West Bengal and Bihar, the project comprises four storage dams at Tilaiya, Konar, Maithon and Panchet Hill with hydel power houses of a total designed capacity of 104 mW attached to all the dams except Konar, three thermal power stations at Bokaro, Durgapur, and Chandrapura with a total capacity of 957 mW, an extensive power transmission grid and an irrigation barrage at Durgapur with canals and distributaries.

The Damodar was called the River of Sorrow because of the periodical devastating floods caused by it. The DVC project was conceived of primarily for the prevention of floods and the utilisation of the stored water for irrigation and power generation.

The Tilaiya dam on the river Barakar, with earthen extensions on either side, was completed in 1953. The Konar dam was completed in October 1955. The Maithon dam on the river Barakar stores 13,570 lakh cubic metres of water, and the underground hydro-electric station near the dam has a capacity of 60,000 kW. The dam was completed in 1958.

Designed primarily for flood control, the Panchet Hill dam on river Damodar, completed in December 1959, stores 14,970 lakh cubic metres of water. A 40,000 kW hydro-electric station built near the dam was commissioned in September 1959.

The 692 metre long and 11.58 metre high barrage on river Damodar at Durgapur in West Bengal was opened in August 1955. The operation and maintenance of the barrage and irrigation system was transferred to the Government of West Bengal from April 1, 1964. Nearly 137 km of the main left bank canal have been made navigable.

The Bokaro thermal power station with an installed capacity of 150 mW was commissioned in March 1954. An additional unit of 75 mW has since been added to this station. At Durgapur two units of 75 mW each and one unit of 140 mW have been commissioned. One of the two units of 140 mW each at Chandrapura was put into commercial operation on December 1, 1964, while the second was commissioned in May 1965. One more unit of 140 mW at Chandrapura was commissioned in July 1968.

Mayurakshi Project : This project estimated to cost Rs. 20.46 crores is mainly an irrigation scheme though it also provides for the installation of a 4,000 kW hydro-electric plant. Power from the project will be supplied to Birbhum and Murshidabad districts in West Bengal and Santhal Parganas in Bihar. The first stage of the project was completed in 1951 with the construction of a diversion barrage at

Tilpara near Suri, 3.2 km below the dam in West Bengal. The 47.24 metre high and 640 metre long Massanjore dam, now named Canada dam, was completed in June 1955. The canals will irrigate 2.47 lakhs hectares annually. The Canada dam with a capacity of 6,610 lakh cubic metres of water will provide *rabi* irrigation for nearly 20,235 hectares. The first 2,000 kW generating set was commissioned in December 1956 and the second in February 1957.

Kangsabati Reservoir Project: This is the largest multipurpose river valley project undertaken by the State Government. The total outlay for this project was Rs. 31.52 crores. Its main object is flood control as well as providing irrigation facilities to a huge tract of land in Bankura, Midnapore and a part of Hooghly district. It has a total irrigation potential of 8,00,000 acres of *kharif* crops and 1,50,000 acres of *rabi* crops.

Bandel Thermal Power Station: This power station (costing Rs. 33.63 crores) is located about 46 km north of Calcutta close to the river Hooghly, by the side of Bandel-Baharwa railway line and at the centre of a rapidly growing industrial area. It is comprised of four generating units of 82.5 mW each.

Santaldih Thermal Station: This scheme provides for the installation of four generating units of 120 mW capacity each, and other auxiliary equipment at Santaldih in Purulia district utilising the middlings and rejects available from the adjoining coal washeries. The scheme is estimated to cost Rs. 75.56 crores and is expected to be completed during the Fourth Plan period.

Jaldhaka Hydro-Electric Scheme: This is a major hydro-electric scheme undertaken by the State Government. It envisages harnessing of the river Jaldhaka near Bindukhola on the border between West Bengal's Darjeeling district and Bhutan by building a 230 ft. long barrage across the river. From there water will be carried to a point at Jhalung through a tunnel where the power station is located for the generation of electricity. The project's power generating capacity is 12,000 kW during the dry season and 24,000 kW during the monsoon. The total outlay of the project was Rs. 1.8 crores.

Chittaranjan Locomotive Works: As part of the plan to achieve self-sufficiency in railway rolling stock, the Government of India established a locomotive factory at Chittaranjan in West Bengal.

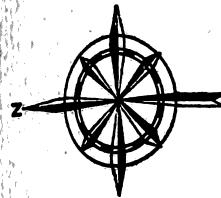
Originally designed to produce 120 locomotives of average size, equivalent to 96 WG locomotives, and 50 spare boilers a year, the Chittaranjan Locomotive Works has been expanded to produce WG, WT, WP and WL type locomotives equivalent to 200 average size locomotives. Since it commenced production in 1950, up to the end of March 1969, the Works delivered 2,254 steam locos. Production of electric locomotives was taken up in 1961 and by the end of March

RELIEF AND DRAINAGE

INTERNATIONAL BOUNDARY

DISTRICT BOUNDARY ---

RIVER

32 MILES
16

MAP 2

1969, it had produced 19 WDS-4-A diesel shunting locomotives. The indigenous content of steam locos is 97 per cent and of AC electric locos about 76 per cent.

A steel foundry of 10,000 tonnes annual capacity, set up at the Works, started production in November 1963 and produced 31,067 tonnes up to the end of March 1969.

The Hindustan Cables, Rupnarayanpur, started production in 1954. Originally planned to turn out 470 miles of dry core cables of different specifications, the capacity was increased to 800 miles per annum during the Second Plan.

Recently the Company's plant for the manufacture of type 174 coaxial cables has been commissioned. The other expansion programmes of the unit include setting up of an aluminium sheathed cables plant (capacity 1000 kms per annum at an estimated cost of Rs. 225.79 lakhs), raising the total capacity of the existing factory for producing core communication cables to 8,000 km (cost Rs. 435 lakhs) and manufacture of copper coated steel wire (capacity 2600 tonnes, cost Rs. 162.22 lakhs).

The Durgapur Steel Plant, set up during the Second Five Year Plan to produce 10 lakh tonnes of ingot steel, was further expanded in the Third Plan to produce 16 lakh tonnes of ingot steel. A new Skelp Mill was also inaugurated on July 4, 1968, practically completing the expansion work. The plant produces light and medium sections of steel and billets. The Durgapur Steel Project has come up with British help. Provision has been made in respect of space and other facilities to expand its capacity to 3.2 million tonnes, but there is no plan as yet on the part of the Government to carry out this expansion.

Alloy Steel Plant: The decision to set up a project for manufacturing alloy and tool steel at Durgapur was taken in November 1960. The capacity decided for the plant was 48,000 tonnes per annum with a built-in capacity in certain primary units so that it could be rapidly expanded to 100,000 tonnes. The Fourth Five Year Plan has approved the expansion of the ASP from the present one lakh tonnes to 3 lakh tonnes of alloy steel.

The project incorporates some of the latest equipment and processes for the manufacture of alloy products developed recently in advanced countries.

The Coal Mining Machinery Project at Durgapur which originally formed part of Heavy Engineering Corporation was taken over by the Mining and Allied Machinery Corporation Ltd., Durgapur, in April 1965. The plant has been set up with Soviet assistance with a capacity for the manufacture of 45,000 tonnes of machinery a year. The Project was set up on the basis of the coal targets estimated for the Third and Fourth Five Year Plans which have, however, been substantially reduced,

with the result that the plant is having to carry a considerable measure of idle capacity. Efforts are being made to diversify production. The fields of diversification include manufacture of coal washery equipment, mechanical handling plants for ports, hydraulic pits props and components for agricultural tractors.

The National Instruments Factory, Jadavpur : The history of the National Instruments Factory, Calcutta dates from 1830. During World War II, it was converted into a full-fledged instruments factory. In June 1957, it was converted into a Government company called the National Instruments Ltd. Its authorised capital is Rs. 5 crores and issued and paid up capital up to March 31, 1966 was Rs. 3.13 crores.

The Jadavpur unit of National Instruments Ltd. manufactures precision instruments, such as, survey instruments, drawing office equipment, microscopes, binoculars, optical and vision sighting equipment of various types, ophthalmoscopes, blood pressure equipment etc. As a result of fall in sales and curtailment of production of certain traditional items, the company has in hand a programme of diversification, to include items of which there is greater demand, particularly from Defence Services.

The Ophthalmic Glass Project, Durgapur was set up (estimated cost over Rs. 4 crores; production 300 tonnes of ophthalmic glass blanks), with the technical and financial collaboration of the USSR. It has been transferred from the Heavy Engineering Corporation to the National Instruments Ltd. The unit has gone into commercial production and is expected to reach full production by 1970-71.

Fertilizer Project at Durgapur : A Central project for manufacturing fertilizers with the gas available from the State Government's Cokeoven Plant was undertaken in the Third Five Year Plan at an estimated cost of about Rs. 20 crores. This plant will produce 300 tonnes of urea and 200 tonnes of di-ammonium phosphate per day. This will be completed soon.

The Coal-based Industrial Complex at Durgapur : Of all the minerals, coal is most abundantly available in West Bengal. It was therefore, decided by the State Government to develop an industrial complex at Durgapur for the manufacture of a wide range of chemical products from coal. The first step towards that direction was taken in the Second Five Year Plan when the decision to set up a Cokeoven plant was taken.

Durgapur Project comprises—(i) A Cokeoven Plant with its by-products and tar distillation plants; (ii) A thermal power station; (iii) A gas grid between Durgapur and Calcutta supplying gas for domestic and industrial needs; and (iv) A new industrial complex offering industrial sites and modern facilities.

The Cokeoven plant is designed to carbonise 1400 tonnes of coal per day. The principal daily products are 1000 tonnes of hard coke, 15 million cft. of cokeoven gas, 45 tonnes of tar, 5 tonnes of Benzene, about 4500 gallons of crude Benzol and about 20 tonnes of ammonia and ammonium sulphate.

The coke produced in the plant is Grade-I metallurgical hard coke ideally suitable for foundries, blast furnaces, ferro-alloys and chemical industries. Basic chemicals like benzene, toluene, Xylene, etc., are recovered by further processing and Benzol is available in appreciable quantity in the cokeoven gas. There is also arrangement for recovering sulphuric acid.

A gas grid for supplying cokeoven gas from Durgapur to Calcutta was laid. The cokeoven gas is used both for industrial as well as domestic purposes.

A Tar Distillation Plant with a capacity of distilling 100 tonnes a day was set up for obtaining a number of chemical products from tar. These are ammonia liquor, light oil, carbolic oil, naphthalene oil and naphthalene mix, wash oil, anthracene oil mix and pitch. There is also a provision for manufacture of phenol-formaldehyde from this plant.

A Coal Washery also forms part of the complex.

The total cost of the project including the power plant was about Rs. 33.46 crores.

The Organic Chemicals Project : The cokeoven plants at Durgapur yield certain bye-products which allow considerable scope for exploitation for the manufacture of a variety of costly chemicals. With this purpose in view, the State Government decided to set up a separate industrial unit for producing electrolytic and synthetic chemicals. It was set up in collaboration with a French firm. The products of the plant are : caustic soda, phenol, chlorine, ophthalic anyhydride, formaldehyde and penta-chlorophenol.

Development of Haldia Port : The biggest single port project undertaken in India in the post-Independence era, the Haldia dock complex, ranks amongst the largest of its kind in the world. This will be a subsidiary port to the main port in Calcutta. The estimated outlay on this project is of the order of Rs. 50 crores including Rs. 4.5 crores of foreign exchange.

The Haldia port complex will have an oil jetty, an iron ore berth, a coal berth, one fertilizer berth, a finger jetty, two general cargo berths and a container marshalling yard. All cargo, except for oil, will be handled inside a deep and extensive wet dock with a water area of over 170 acres served by one of the largest lock entrances in the world. A rail and road link connecting Haldia with Panshkura on the Howrah-Kharagpur main line of the South-Eastern Railway at a distance of 71 kms from Howrah, is under construction.

Haldia Refinery : Under an agreement with French and Rumanian firms, an oil refinery of 25 lakh tonnes capacity is being set up at Haldia. The project, a part of the Indian Oil Corporation complex, estimated to cost Rs. 46 crores, is expected to commence operations by the end of 1970.

Farakka Barrage : The basic cause of the deterioration of the river Hooghly is the gradual diminution of headwater supply from the Ganga, which has caused heavy siltation of the lower reaches of the river. It poses an immediate threat to the very survival of the Port of Calcutta and also the city itself.

A scheme has been undertaken by the Centre to construct a barrage across the Ganga at Farakka, about 240 miles up the river from Calcutta. The essential features of the scheme are diversion of water towards the Hooghly, control on the entry of sand and other river training measures. The Rs. 160 crore Farakka Barrage Project is expected to be completed in about two years.

The specific weightage, in terms of growth and development, of all these schemes and projects notwithstanding, West Bengal with all its human and natural potentialities, never really succeeded in taking the high road of economic and social upliftment. If anything, the crisis became more acute and pervasive. Why?

6. *On the Downgrade*

DEVELOPMENTAL activities in West Bengal since Independence—particularly since the beginning of planning in 1951—have been of a sizable order. In the course of the first three Plans, a total of about Rs. 544 crores was spent by the Government of West Bengal on developmental outlays. This excludes the expenditure incurred by the Union Government on the Central projects, located within this State. It has been estimated that during the 18 year period, 1951-1969, the total Plan outlay in West Bengal was Rs. 243 *per capita*, inclusive of Rs. 141 of Central assistance, (Govt. of India, *Report of the Finance Commission, 1969*, p. 101). That this impressive outlay has found fruition in a number of completed projects and has contributed to the material and cultural development of the State, we have seen in the preceding chapter. Because of these recent developmental efforts and of the lead that Bengal (particularly its Western parts) enjoyed in the pre-Independence days, this State continues to be one of the most advanced units of the Indian Republic by all accepted indices of ranking. But, at the same time, there are certain clear and ominous indications that its tempo of growth has been slowing down and that it has started lagging behind some of the more vigorous States, if not in total stature, at least in important sectors. Unless these depressing tendencies are checked in time, West Bengal, as the following statistical material would show, runs the extremely real risk of entering a period of total stagnation and decay.

The table below shows the growth of total income (net domestic product) of India by States. It should be noted that these figures are not identical with the usual national income statistics as they exclude defence, Indian embassies and other establishments abroad and insurance business outside the country from their purview. It will be seen that West Bengal accounts for the second highest aggregate among the States, next to Maharashtra only. Though it accounted for about 3

per cent of the total area and 8 per cent of the total population of the country, this State contributed about 10 per cent of the total net domestic product of all States.

At the same time it should also be noted that though West Bengal registered the average rate of growth for all States, viz., 50 per cent, and though it was considerably higher than Maharashtra's 39 per cent, and Tamil Nadu's 34 per cent, the growth rates of Punjab and Gujarat at 70 per cent and 53 per cent respectively were higher than West Bengal's.

**Total State Incomes (Net Domestic Product)
by States—at Current Price**

(Rs. crores)

	1960-61	1964-65	% Increase in 1964-65 over 1960-61
<i>All States (excluding Nagaland)</i>	12959	19535	50
Gujarat	775	1189	53
Maharashtra	1640	2277	39
Punjab	422	714	70
Tamil Nadu	1155	1552	34
West Bengal	1331	1916	50

Source: Central Statistical Organisation (CSO), Govt. of India.

The relative position of West Bengal among the more developed States of India appears in a more unfavourable light in terms of *per capita* incomes. It will be seen in the table below that West Bengal which occupied the second place in 1960-61 came down to the fifth in 1964-65. The growth of the *per capita* income in West Bengal during this period at 29 per cent, although higher than Maharashtra's 26 per cent was substantially lower than Punjab's 50 per cent, Haryana's 40 per cent and Gujarat's 38 per cent, which, incidentally, was also the average for the country as a whole.

Per Capita Incomes by States

(In Rupees)

	1960-61	1964-65	% Increase in 1964-65 over 1960-61
India	304	418	38
Gujarat	380	523	38
Haryana	359	504	40
Maharashtra	419	526	26
Punjab	383	575	50
West Bengal	386	498	29

Source: CSO. The estimates have been worked out by adopting the concept of 'incomes originating within the geographical boundaries of India'. For calculating *per capita* incomes, population projections as on October 1 of the years have been adopted.

The overall index of national income, however, fails to reveal fully the real extent of deterioration in West Bengal's position. The relative preponderance of the service and profession sectors in this State tends to cover up the comparatively growing lag in the primary and secondary sectors, viz., agriculture and industry, in which some other States have been making a faster headway.

The table below gives the figures for the growth in agriculture—State-wise. It will be seen that West Bengal occupies the 12th, 10th and 9th places in terms of the rate of annual growth in agricultural production, area and productivity (yield per acre) respectively. Indeed, all the three growth rates in West Bengal are considerably lower than the national averages.

**Compound Growth Rates in Agriculture
1952-53 to 1964-65**

(Per cent per annum)

<i>State</i>	<i>Production</i>	<i>Area</i>	<i>Productivity</i>
Punjab	4.56	1.90	2.61
Gujarat	4.55	0.45	4.09
Tamil Nadu	4.17	1.10	3.04
Mysore	3.54	0.81	2.71
Bihar	2.97	0.71	2.25
Maharashtra	2.93	0.44	2.45
Rajasthan	2.74	2.85	(—)0.11
Andhra Pradesh	2.71	0.26	2.45
Madhya Pradesh	2.49	1.28	1.21
Orissa	2.48	0.81	1.66
Kerala	2.27	1.30	0.96
West Bengal	1.94	0.59	1.34
Uttar Pradesh	1.66	0.72	0.94
Assam	1.17	1.25	(—)0.08
<i>India</i>	<i>3.01</i>	<i>1.21</i>	<i>1.77</i>

Source : Govt. of India, Fourth Five Year Plan, p. 119.

The table below gives the figures for gross ex-factory value of industrial output. It will be seen that between 1951 and 1965, West Bengal's output increased 286 per cent only compared with 1145 per cent in composite Punjab, 351 per cent in Madras (Tamil Nadu and Andhra Pradesh) and 345 per cent in Bombay (Maharashtra and Gujarat).

Gross Ex-factory Value of Industrial Output

(Rs. crores)

	1951	1965	% Increase in 1965 over 1951
Gujarat } Maharashtra }	456.12	518.00 1516.00	
Sub-total		2034.00	345
Haryana } Punjab }	19.99	249.00	1145
Madras (Tamil Nadu) } Andhra Pradesh }	154.62	545.00 253.00	
Sub-total		798.00	351
West Bengal	355.79	1376.00	286
India	1306.86	6419.60	379

Source : Govt. of India, *Annual Survey of Industries*.

Here are some more indications that West Bengal is increasingly falling behind other States of the Indian Union.

While in India as a whole the proportion of the working population to the total population, according to the Survey Committee on the Engineering Industry in West Bengal, 1951-68, increased from 38.9 per cent in 1951 to 42.8 per cent in 1961, the corresponding proportion for West Bengal declined from 35.0 per cent to 33.0 per cent (*Mimeographed Report*, p. 29).

Per capita power consumption was the highest in West Bengal in 1957-58 among the States. Though it increased from 65.7 kWh in 1957-58 to 105.4 kWh in 1966-67, this State had in the meantime fallen behind Maharashtra and Punjab with 113.5 kWh and 106.1 kWh of *per capita* consumption. (*Eastern Economist*, New Delhi, July 26, 1968 and Govt. of West Bengal, *Economic Review*, 1969-70, p. 82.)

From material, West Bengal's decline in the relative position among the States of India seems to have advanced to cultural sphere too, witness the comparative literacy rates. In 1951, this State held the second place, coming, though at a considerable distance, after Kerala only. In 1961, West Bengal's position was the fifth.

No. of Literate Persons per 1000 Population

	1951	1961
<i>India</i>	166	240
Gujarat	231	305
Kerala	407	468
Tamil Nadu	208	314
Maharashtra	209	298
West Bengal	240	293

Source: *Census of India.*

The gap between West Bengal and the other leading States is certain to widen considerably in the coming years as the developmental efforts, measured in terms of outlay in the Fourth Plan, will be much higher in the latter group of States than West Bengal. The table below reveals that at Rs. 322.50 crores, West Bengal's outlay during the Fourth Plan will be exactly 33.3 per cent of that of Uttar Pradesh, 36 per cent of Maharashtra and about 60 per cent of both Bihar and Tamil Nadu. Indeed, West Bengal occupies the ninth place among the States of India in terms of the size of outlay during the Fourth Plan.

States' Outlay in Fourth Five Year Plan

	(Rs. crores)
<i>Total for all States</i>	6606.47
Uttar Pradesh	965.00
Maharashtra	898.12
Bihar	531.28
Tamil Nadu	519.36
Gujarat	455.00
Andhra Pradesh	420.50
Madhya Pradesh	383.00
Mysore	350.00
West Bengal	322.50

Source: Govt. of India, *Fourth Five Year Plan*, p. 67.

The distance at which West Bengal is trailing behind other States in certain spheres of development is revealed even more clearly in the table below. It will be seen that out of more than a million pumps energised (for irrigation purposes) at the end of 1968-69, West Bengal accounted for a bare thousand only. At the end of the Fourth Plan, the total for the country will rise to over 2.3 million, out of which West Bengal's share will be 3,607 only.

Number of Pumps Energised

	<i>At the end of 1968-69</i>	<i>At the end of Fourth Plan</i>
<i>India</i>	<i>1,087,547</i>	<i>2,337,547</i>
Andhra Pradesh	122,321	172,321
Bihar	49,375	138,375
Gujarat	42,088	57,088
Haryana	45,385	70,385
Kerala	13,909	25,159
Madhya Pradesh	24,631	74,631
Maharashtra	124,961	224,961
Mysore	91,888	130,588
Punjab	59,112	81,612
Rajasthan	18,795	53,795
Tamil Nadu	410,119	562,284
Uttar Pradesh	75,465	225,465
West Bengal	1,197	3,607

Source : Govt. of India, *Fourth Five Year Plan*, pp. 280-81.

7. Intra-State Disparities

THE total or average figures for West Bengal are hardly indicative of the real picture of the State because of wide inter-district disparities. While the Calcutta Metropolitan District or the district of Burdwan in the coal-iron ore belt represents a relatively high level of development, the outlying regions like Darjeeling-Cooch Behar-Jalpaiguri in the north or Purulia-Bankura-Murshidabad in the West reflect a sorry plight of stagnation and decay. Indeed, a greater degree of intra-State regional imbalance is not witnessed in any other State of the Indian Union, as the table below, compiled on the basis of the data provided by the Census of India, reveals.

Proportions of Population Living in Districts at Different Levels of Development

	(Per cent)			
	<i>Bottom</i>	<i>Third</i>	<i>Second</i>	<i>Top</i>
<i>India</i>	19.66	25.02	24.60	30.72
West Bengal	3.90	33.96	4.14	58.00
Maharashtra	4.62	22.37	20.39	52.60
Tamil Nadu	..	..	38.59	61.41
Punjab	5.33	8.77	7.57	78.33

Source : *Census of India, Vol. I, Part I(A-i)*.

It will be seen that compared with the all-India average of 30.72 per cent, 58.00 per cent of the total population of West Bengal live in the top level districts. Indeed, the proportion of the population in the top level districts of this State is greater than the combined

all-India averages for the top and the second levels. But the second level of development is virtually non-existent in West Bengal. Compared with the all-India average of 24.60 per cent or 20.39 per cent for Maharashtra and 38.59 per cent for Tamil Nadu, the proportion of population living in the second level districts in West Bengal is only 4.14 per cent. While there is no district in Tamil Nadu below the second level of development and only about 14 per cent and 27 per cent of the respective population in Punjab and Maharashtra live in districts belonging to the third and bottom levels of development, the corresponding proportion for West Bengal is nearly 38 per cent.

The wide divergences that exist among West Bengal districts embrace almost all the conceivable spheres of development, some of which are studied below.

The following table shows the degree of urbanisation in the different districts of West Bengal in 1951 and 1961.

**Urban Population as Per Cent of Total Population
by Districts—1951 and 1961**

<i>Districts</i>	<i>1951</i>	<i>1961</i>
Darjeeling	13.1	23.2
Jalpaiguri	7.2	9.1
Cooch Behar	7.5	6.9
West Dinajpur	5.8	7.3
Maldah	3.7	4.1
Murshidabad	7.8	8.5
Nadia	18.2	18.4
24-Parganas	29.8	31.8
Howrah	32.4	40.0
Hooghly	24.6	25.9
Burdwan	14.8	18.1
Birbhum	6.5	7.0
Bankura	7.2	7.3
Midnapore	7.5	7.6
Purulia	6.7	6.9
<i>West Bengal</i>	<i>23.88</i>	<i>24.45</i>

It will be seen that of the less urbanised districts, only Darjeeling made a notable progress towards urbanisation during the last inter-census decade.

About half a dozen districts revealed a virtually static proportion

of urban population. Cooch Behar actually showed a decline.

As of 1961, eight, i. e., one half of West Bengal's 16 districts had a urbanisation rate which was one-third of the State average.

The State Statistical Bureau of the Government of West Bengal prepared a study of the contributions made by the different levels of the districts to the State's total income as well as the incomes from the agricultural and industrial sectors. The results of the study, relating to the year 1960-61, are summarised below. It will be seen that four districts at the bottom, accounting for an aggregate of 12.11 per cent of the State's total population contributed only 6.79 per cent of the State's income, and 10.41 per cent and 3.56 per cent of the incomes from agriculture and industry respectively. Three districts at the top level, on the other hand, collectively accounted for 35.20 per cent of the population, but 45.13 per cent of the total income and 56.68 per cent of the income from industry.

Contribution to State Income—1960-61

	<i>P. C. of total population</i>	<i>P. C. of total income</i>	<i>P. C. of income from</i>	
			<i>Agriculture</i>	<i>Industry</i>
<i>Lowest stratum</i>				
Darjeeling, Cooch Behar, Purulia, Maldah	12.11	6.79	10.41	3.56
<i>Second stratum</i>				
Bankura, Birbhum, West Dinajpur	12.70	10.69	19.81	4.53
<i>Third stratum</i>				
Jalpaiguri, Nadia, Murshidabad	15.32	13.95	23.07	7.37
<i>Fourth stratum</i>				
Howrah, Hooghly, Midnapore	24.67	23.44	22.89	27.86
<i>Highest stratum</i>				
Burdwan, 24-Parganas, Calcutta	35.20	45.13	23.82	56.68
Total:	100.00	100.00	100.00	100.00

Source : Government of West Bengal, *Estimates of State Income and its Regional Differentials*, West Bengal, 1965, p. 44.

The inter-district disparity is naturally the widest in the sphere of large-scale industry. Out of the 5,658 registered factories in West Bengal in 1966, 4,489 factories or 81 per cent of the total were located in the three districts of Calcutta, 24-Parganas and Howrah. At the other end, nine of the least developed districts accounted for an aggregate of 399 factories only or 7.0 per cent of the total. (See table in the Appendix).

Table below gives the distribution of employment in registered factories in different districts of West Bengal in 1951 and 1966.

**Registered Factory Employment in West Bengal
1951 and 1966**

(No. in lakhs)

Districts	1951		1966	
	No.	P. C.	No.	P. C.
I. Calcutta and 24-Parganas	3.75	57.2	4.45	52.9
II. Howrah and Hooghly	1.92	29.3	2.53	28.9
III. Burdwan	0.40	6.1	0.77	9.2
IV. 11 Other Districts	0.48	7.4	0.65	9.0
Total:	6.55	100.0	8.40	100.0

Source: Government of West Bengal, *Report of the Survey Committee on the Engineering Industry in West Bengal, 1951-1968*, mimeographed copy, p. 11.

It will be seen from the above that even in the course of the 15 years of planned development, the inter-district disparities in industrial development has not been materially mitigated. The share of the 11 backward districts in the State's registered factory employment had moved up during this period only marginally from 7.4 per cent to 9.0 per cent.

Regional disparities among the States of the Indian Union as well as among the districts or regions within the same State are quite marked and by itself would furnish no cause for comment. This indeed is a problem common to all developing countries of the world, as

also to many developed countries. But the extremely high degree of spatial imbalance that is manifested in West Bengal is something extraordinary.

The Registrar-General of India for the 1961 Census, Mr. Ashok Mitra, ICS provided some tell-tale material to illustrate "the differences in their (districts in different levels of development) absorptive capacities for industrial activity" as measured by the distribution of industrial licences, "acquired by the blocks of districts in the four levels of development between 1953 and 1961 under the Industries (Development & Regulation) Act.". Table below reproduces the abstracts of these statistics. It excludes three metropolitan areas which accounted for a disproportionately large share of licences, viz., Greater Bombay, Calcutta and Madras. These three centres in aggregate qualified for 1778 licences, out of a grand total of 4971 licences for the entire country during the reference period. The remaining 3193 licences were acquired by the other districts as stated in the table below.

**Distribution of Industrial Licences Among Districts
of Different Levels—1953 to 1961**

(Numbers)

States	Shares of districts belonging to Levels			
	I	II	III	IV
Andhra Pradesh	—	24	59	58
Bihar	11	30	13	92
Gujarat*	—	3	84	290
Madras**	—	—	86	273
Maharashtra	2	26	20	238
Mysore	3	24	52	112
Orissa***	27	26	12	—
Punjab	1	1	1	358
Uttar Pradesh	33	16	80	239
West Bengal	—	1	1	358

* Has no district in Level I.

** Has no districts in Level I and II

*** Has no district in Level IV.

Source: Census of India, Vol. I, Part I-A(i).

It will be seen that excepting Punjab and West Bengal in all other States licences were more evenly distributed among districts in different levels of development. At first sight Punjab and West Bengal seem to reveal exactly the same degree of concentration at the top level of development. But this conclusion would be largely erroneous. First, Punjab has no metropolitan city to pre-empt a majority of the total licences acquired by the State. Secondly, inter-distribution at the top level was more even in Punjab than in West Bengal, as the table below shows.

Distribution of Licences within Top Level of Development

<i>West Bengal</i>		<i>Punjab</i>	
<i>Districts</i>	<i>No. of licences</i>	<i>Districts</i>	<i>No. of licences</i>
Calcutta	567	Gurgaon	102
Howrah	126	Ludhiana	55
24-Parganas	115	Amritsar	49
Hooghly	65	Ambala	44
Burdwan	37	Jullunder	26
Nadia	12	Patiala	21
Jalpaiguri	2	Rohtak	18
Darjeeling	1	Kapurthala	18
		Hissar	8
Total	925	Gurudaspur	6
		Karnal	5
		Ferozepur	4
		Bhatinda	2
		Total :	358

Table below gives some indicators of development relating to all the districts of West Bengal, excluding Calcutta. First, as regards organised industry, it will be seen that except for the six districts of Derjeeling, Jalpaiguri, 24-Parganas, Hooghly, Howrah and Burdwan, the proportion of workers in registered factories in the total population is extremely negligible. Indeed, apart from Midnapore and Birbhum wherein the proportion is slightly above one per cent, in all the other backward districts it is much less than one per cent: as low as 0.03 per cent in Malda and 0.16 per cent in Cooch Behar. Even

among the first group of industrially advanced districts, the proportion is very low in Darjeeling and Jalpaiguri at 3.34 per cent and 3.92 per cent respectively.

In terms of industrial use of power, the number of districts which can qualify for the higher category is even smaller at five, namely, Darjeeling, 24-Parganas, Hooghly, Howrah and Burdwan. Among the rest, only Nadia with 3.83 per cent stands apart. For most of the other districts, the proportion is below two per cent.

Even in terms of combined employment in manufacturing (in registered and unregistered establishments) only seven districts, 24-Parganas, Howrah, Hooghly and Burdwan at the top level and Murshidabad, Nadia and Bankura among the others, can boast of having one per cent and above of the total population engaged in manufacturing industries.

Besides the stunted growth of manufacturing industry, the household industry has become almost extinct in most of the districts. Except for Malda, Murshidabad and Nadia where it provides employment to 9 to 13 per cent of the working population the only other districts where household industry employs more than 5% are Midnapore and Bankura. In all the other districts it is less than 5 per cent.

As a result of the two above-mentioned factors, viz., the tardy growth of manufacturing industry and decline of household industry, the pressure of population on agriculture has reached an abnormally high level in some of the backward districts—ranging from 80.57 per cent in Midnapore to nearly 88 per cent in West Dinajpur.

The development of infra-structure and super-structure, as indicated by the incidence of surfaced road and literacy respectively, also reveal the same inter-district variations.

As a consequence of this wide intra-State disparities about 30 per cent of the population of West Bengal live under extremely depressed conditions, even though in terms of totals and reckoned by various indices of growth and status, West Bengal is the second most developed State in the country.

Levels of Development among Districts of West Bengal

District	Area under double crop (P. C. of net area sown)	Gross area irrigated (P. C. of gross area sown)	Cultivators & agricultural labourers (P. C. of rural working population)	Workers in household industry (P. C. of rural working population)	Crude literacy rate	Workers in manufacturing (per 1000 of total population)	Miles of surfaced Road (per 1000 sq. miles of area)	Establishments run on electricity (per cent of all industrial establishments)	Workers in registered factories (per cent of all workers)
Darjeeling	12.6	20.1	49.17	1.69	287	8	251	8.80	3.34
Jalpaiguri	9.2	22.6	49.39	1.13	192	6	222	1.73	3.92
Cooch Behar	20.4	4.2	86.79	2.40	210	5	148	1.55	0.16
West Dinajpur	23.5	3.0	87.85	2.26	171	5	107	0.47	0.39
Malda	28.1	5.3	66.48	12.81	138	6	119	0.60	0.03
Murshidabad	41.4	16.0	68.92	11.02	160	13	188	1.61	0.20
Nadia	47.7	1.9	70.98	9.01	272	18	276	3.83	0.70
24-Parganas	14.8	7.7	72.81	2.69	325	21	203	9.66	12.40
Hooghly	10.3	37.5	68.64	4.23	347	20	389	5.48	10.70
Howrah	15.3	22.8	45.12	3.24	369	31	415	20.36	22.78
Midnapore	6.9	29.9	80.57	5.43	273	8	156	1.09	1.21
Bankura	5.1	35.7	81.37	5.82	231	10	266	1.45	0.47
Birbhum	9.7	64.3	78.74	4.67	221	9	180	2.34	1.12
Burdwan	6.0	41.8	56.49	3.05	296	38	273	7.10	5.75
Purulia	7.7	35.9	86.78	3.14	178	9	121	1.83	0.42

Source : Census of India 1961, Vol. I, Part I-A(ii).

8. *Infra-structure*

THE infra-structure of the economy in this riverine State and indeed the survival of its people are directly and in a large measure dependent on the control of the rivers. Through the operation of natural factors and as a result of accumulated neglect by social agencies, many of the life-sustaining water-courses have now turned into sources of sorrow and death.

The exact nature of the problem besetting the rivers and water courses of the State vary according to physiographic conditions of the different zones which may be classified as below :

(1) *North Bengal—*

This area is traversed by a number of hilly rivers. These are torrential and swift-flowing rivers bringing in huge quantities of debris including boulders from their upper catchments. When the rivers emerge in the plain from the foothills, the velocities drop and this flow can no longer keep this huge quantity of bed load in motion. A part of this load gets deposited on the bed. Thus the beds rise continuously. As a result, these rivers are prone to change their course due to bushing of banks, bringing in their train colossal destruction of life and property. The situation has been aggravated by denudation of the upper catchment through unscientific land use. The situation is further complicated in the case of rivers, whose sources are outside the country. So long some of the problems of erosion and inundation created by these rivers have been treated on a purely local basis. But no lasting solution is to be expected unless an integrated approach to the whole problem is made. The repeated floods of the rivers Teesta, Mahananda, Karala, Torsha, Jaldhaka etc. are evidence of this. The remedy would probably lie in trying to confine the rivers within their banks strengthened by protective measures. The inflow of bed material has to be checked as far as possible, firstly by treatment of catchment

areas and secondly by construction of check dams at suitable places. Considerable movement of bed material would still continue and measures will have to be devised for reducing the concentration of these debris by planned removal of those from the bed. It may be mentioned that these materials are in great demand for use in construction. There is a blue-print for a master plan for the prevention of floods of these major rivers involving a total expenditure of about Rs. 200 crores. It has been for some years under the consideration of the Union Government. But no action has yet been initiated.

(2) *Malda and West Dinajpur—*

This area suffers from drainage congestion during the flood season and scarcity of water during the dry season. Suitable drainage works will have to be constructed to relieve drainage congestion and arrangement has also to be made for more adequate water supply during the dry period. Deep tube-well irrigation has great potentialities in this area as revealed by a preliminary survey carried out by T. C. M. experts in 1960.

(3) *Central Bengal—*

There is a gradual deterioration in the efficiency of the Central Bengal rivers which results in drainage congestion and flooding during the monsoon. The inland navigation through these rivers has also deteriorated in recent times. The improvement of drainage capacity and navigability of these rivers is an urgent task for the well being of this area.

(4) *Western Part—*

The rivers in the Western part of this State are generally flashing and carry a large volume of water during the flood season extending over a period of about three months in a year. This water needs to be properly stored and arrangements made for its distribution for the purpose of irrigation, industrial and other uses. Some storage reservoirs have already been constructed for this purpose, while others are still to come up. The effects of construction of such storage reservoirs on the regime of the channels downstream of these reservoirs have to be studied carefully. The silting up of the outlets in the lower Damodar reaches has already created a very dangerous situation. Whenever as a result of heavy showers in the catchment areas, the reservoirs of the DVC system fill up to cross the safe limit and heavy discharges are made from these reservoirs to prevent the bursting of the dams, extensive areas in the lower reaches get submerged under water—leading to widespread loss of life, crops and other property.

(5) *The Sunderbans Area—*

Here the problem is of salt water intrusion. To prevent the intrusion of saline water into the cultivated land, an elaborate system of local embankments has been raised along the difficult creeks right from the middle of the last century. But these embankments have not been able to meet the situation adequately. A planned attack has to be made on the problems of reclamation of the Sunderbans involving closure of some estuaries. Only preliminary investigations for this purpose have so far been made.

(6) *Tidal Zone—*

The problems of the rivers in the tidal zone, though apparently less deadly than the flashing rivers in North and Western zones, are really more pressing as they seriously threaten the working and efficiency of the vital Calcutta port and the sprawling conurbation on both banks of the Hooghly and could even lead to their virtual extinction in course of time, if adequate remedial measures are not taken in the meanwhile.

Till the end of the 18th century, the Bhagirathi-Hooghly arm of the Ganga was its main channel through which the low water discharge of the river used to flow into the Bay of Bengal. Only during the flood stage, did the overflow course into the Padma-Meghna channel. It was this flow of the life-sustaining Ganga along the Bhagirathi-Hooghly course that had led to the growth of the flourishing urban settlements along the latter's banks. The old city of Gour, the Hindu cultural centres of Nabadwip and Katwa, the capital of the subah of Bengal in the Moghul days, Murshidabad, and finally the great metropolis of Calcutta, are all offsprings of the Bhagirathi-Hooghly during her prosperous days.

With the change in the water course, the left-arm comprising the Padma-Meghna started drawing more and more of the headwater discharges and, consequently, the right-arm started deteriorating.

In course of time the duration of the upland supply of water into the Bhagirathi-Hooghly channel came to be limited to about five months in a year—from mid-June to mid-November—and its intensity, from about 100,000 cusec to nil. As against this, the Hooghly receives a strong tidal inflow throughout the year.

The trickling discharge of headwater cannot carry the silts they bring from the uplands to the sea while the wide and shallow continental shelf in this part of the world enables the tidal waves to scour the surface and carry the sands inland. About 100 million cubic feet of silt, according to the calculations of the Union Ministry of Irrigation and Power, come into the Bhagirathi-Hooghly every year, two-thirds of which is deposited in the river below Bansberia. This again is

pushed up by the flood tides. The monsoon discharge during a period of five months in the year cannot undo this damage. As a result, heavy deposits of silts and sand from both ends of the river have been over many decades gradually, but persistently, raising its bed and narrowing the navigational channels—in addition to the creation of a number of sand bars and shoals which tend to make navigation extremely risky.

Besides, the relatively high inflow of sea-water and low discharge of fresh water have combined to increase the salinity of the water of the Hooghly and made it unsuitable for human and industrial consumption.

The threat to the port of Calcutta posed by the accumulation of silts and sand is a fairly old problem. In 1858, Sir Arthur Cotton, a British engineer, had observed that only “if additional water is thrown into the Hooghly and kept flowing down during the dry season, it might make just the difference needed to prevent the Hooghly from silting up.” In 1919, the Stevenson-Moore Committee appointed by the Government of Bengal, made the same recommendation. Later, Sir William Wilcox, Mr. T. B. Oag and Mr. A. Webster, all celebrated British experts, made similar suggestions in 1930, 1939 and 1946 respectively.

Despite full knowledge of the serious threat represented by the progressive accumulation of silt, the only remedial action taken all these years has been an increasing recourse to dredging operations which, however, have failed to keep pace with the river's deterioration. Ships entering or leaving Calcutta have now to cross as many as fifteen sand bars and they can cross these bars only if they avail of the tide. This has prolonged the period of time taken by the ships to move between the estuary and the port. An outward journey these days takes 36 to 44 hours.

Despite the rise in the combined cost of dredging and maintaining the river and the port from Rs. 2.58 crores in 1963-64 to Rs. 5.64 crores in 1969-70, larger ships with drafts of more than 26 feet cannot enter the port at all.

Bore tides caused by the onrush of water over a wide estuary, obstructed by shallower and tortuous reaches of the river, further disturb the working of the port as about 25 per cent of the port's berthing capacity is unsafe for use during the bore.

No wonder, under the circumstances, the volume of traffic handled by this port has been recording a precipitous fall—from over 10 million tonnes in 1965-66 to 8.9 million tonnes in 1967-68 to 8.0 million tonnes in 1968-69 and 6.9 million tonnes in 1969-70, i.e. to the level of about two decades ago. The traffic handled by the port of Bombay during this period fluctuated between 18 million tonnes and 16 million tonnes.

On the eve of Independence, Calcutta used to be the premier port

in India. Presently its position is the sixth among the eight ports in the country, just above Kandla and Paradip, the two recent additions to the country's ports.

As the present trend in the world of shipping is to go in for large ships and bulk carriers, the port of Calcutta is soon going to be bereft of cargo unless the present problem of siltation and sand bars is radically solved.

Indeed, the country seems to have resigned itself to the final decline of this great port. A satellite port is now under construction at Haldia—45 miles downstream from Calcutta for handling the larger ships. A substitute port may fulfil the demands of the hinterland, but the decline of the present port will have far-reaching consequences for the city of Calcutta. This port used to handle annual imports of about two million tonnes of petroleum and petroleum products, about a million tonnes each of iron and steel, steel products and foodgrains. It used to export about a million tonnes of coal, about the same quantity of gunny and about 150,000 tonnes of tea. Any sizable fall in the volume of these imports and exports cannot but have a multiplier effect in the process of curtailment of the economic activities centred around the port.

Another adverse effect of the decline of the fresh water flow from the upper reaches of the Ganga, as already noted, is the increased salinity of the water downstream. It is currently observed that during the dry months the salinity of the Hooghly water near the Palta Pumping Station which supplies potable water to Calcutta reaches over 3,000 parts per million of chlorides, while human tolerance is only about 250 parts per million. The high salinity interferes with industrial processes and causes damage to machinery.

The Farakka Barrage Project, now nearing completion, will no doubt mitigate these problems after it starts operation by increasing the flow of fresh water from the upper reaches of the river. But experts are still divided in their opinion as to whether the barrage alone will be able to solve completely all the problems of the Bhagirathi-Hooghly.

Even though the problem of high salinity in water is not faced by the second important industrial complex in West Bengal, i.e. Asansol-Durgapur complex, the situation regarding water supply in that region brooks no complacency either. The total demand for water supply in Asansol-Durgapur area at present is roughly estimated at 100 million gallons per day and is expected to double in the present decade. Unless additional storage capacity is developed in the Damodar system and the prospect of the exploitation of the untapped resources of the Ajoy river is fully explored, a serious water scarcity may develop in the eighties and adversely affect this new growth-centre.

In regard to another important infra-structural prerequisite, viz.,

power supply, the position in West Bengal is rather precarious, despite the State's high ranking in terms of the *per capita* power consumption. With an annual *per capita* power consumption of 105.4 kWh as against the all-India average of 58.0 kWh, West Bengal ranks third, coming after Maharashtra with 113.5 kWh and Punjab with 106.1 kWh. But this relatively high average conceals the extremely wide regional variations within the State. About 95 per cent of the State's total power consumption is accounted for by the Calcutta Metropolitan District and the Asansol-Durgapur region.

The share of North Bengal in the industrial and commercial power consumption of the State in the early sixties was even less than 0.5 per cent, which indicated a major constraint on industrial development in the region on account of the lack of power. The Jaldhaka hydel scheme and its projected extensions will not be capable, on completion, of meeting more than one half of the area's estimated demand. Unless arrangements for import of power from outside the region or a crash programme for local generation are undertaken, industrial advance of this area is bound to be thwarted. Although mountain rivers of this region provide an easy and cheap source of power generation, the failure to tap this is holding up the development of this extremely backward region.

Even in the relatively advanced south-eastern and south-western regions of this State, distribution of power consumption suffers from an extremely high degree of regional imbalance in the sense that the consumption is concentrated in the urban and industrial areas. On March 31, 1967, only 1355 villages out of a total of over 38 thousand were electrified in West Bengal as against 9,883 villages in Uttar Pradesh, 7,406 villages in Tamil Nadu, 5,970 villages in Maharashtra, 4,896 villages in Mysore, 4,523 villages in Bihar and 4,472 villages in Andhra Pradesh. Unless rural electrification makes headway, neither scientific cultivation dependent to a large extent on energised pumps, nor development of agro-industries is possible.

According to the latest statistics (see Appendix), there was in 1967-68 an installed capacity of 1528.6 thousand kW (derated) including the capacity of the DVC plants located within this State. The total generation of power amounted to 5291.4 million kWh, out of which 4330.3 million kWh was sold within the State, including the industrial and commercial consumption of 3395.5 kWh. While the capacity-factor, i.e. 'the ratio of units of electricity actually produced and the units of electricity which can be produced if generators are run at full capacity all the 8760 hours in the year', at about 0.40, was rather low and could be improved upon, and though at the current low level of industrial activity (due to acute recessionary conditions and widespread labour unrest in West Bengal at the time), this level of

power supply did not act as a constraint on industrial production, the situation really rests on a precarious balance.

This is so, because the unutilised part of the total generating capacity is no index to the maximum demand load* that is concentrated during certain hours of the day.

The adequacy of the power supply capacity is dependent on a second crucial ratio, i.e., the load factor, which may be defined as 'the ratio of energy consumed (kWh) during a period and the simultaneous maximum demand multiplied by the hours of the period'.

With the completion and commissioning of the Haldia port, refinery and the projected industries there, the demand for power supply in that area is likely to reach about 670 million kWh. This together with any substantial pick up in the industrial production in this State will push up the demand for power to a level which will be beyond the capacity of the existing power plants to meet.

On the basis of the previous forecast of the necessary capacity at 2200 mW, a four-unit (of 120 mW each) power project was taken up at Santaldih in the district of Purulia, which, however, is being implemented very tardily. Of the projected four, only two units have so far been taken in hand for construction. Of this, the first is expected to be commissioned in 1972.

In the past, during periods when there was a relative spurt in industrial production, as in 1961 and 1964-65, West Bengal faced serious power shortages. It looks as if this State is destined to face similar problems in the years ahead.

The adequacy of power supply apart, the power tariff in West Bengal also acts as an inhibiting factor for industrial growth. "One of the factors", says the Report of the Survey Committee on the Engi-

*The following will illustrate the implications of this distinction. "Let us visualise an electrical supply system which supplies energy to only one consumer who has a dozen points each using one electric equipment of 10 kW. The total connected load of the consumer is 120 kW (i.e., he has created a capacity to consume 10,51,200 kWh of energy per year). But as the consumer is in the habit of not using more than six of the points at a time, his maximum demand is 50 per cent of the connected load, i.e., 60 kW. Hence, the electric supply system has created a capacity to supply 60 kW of energy (i.e., 5,25,600 kWh of energy per year). If the consumption of energy per year happens to be one-fourth of 5,25,600 (i.e., 1,31,400 kWh), it would mean 75 per cent idle capacity for the electrical supply system and 87.5 per cent idle capacity, so far as the capacity created by the consumer is concerned. If the consumer increases the consumption of energy but continues the habit of not using more than six equipment at a time, the electric supply system will be able to supply the increased demand with the existing installed capacity. But if the increase in the consumption of energy is brought about by a change in the habit of the consumer so that he some times uses nine equipments (but not more than nine at a time), the electric supply system will have to increase the capacity by 50 per cent." (P. H. Prasad, in *The Economic & Political Weekly*, Bombay, June 20, 1970.)

neering Industry in West Bengal, 1951-68, "helping the initial location of industrial units in the Calcutta-Howrah area was the availability of cheap power. This advantage has, to a large extent, ceased to exist now. Compared to the hydro-electricity areas of Maharashtra, the large units in West Bengal even under the Calcutta Electricity Supply Corporation system are to pay 52-58 per cent higher tariff. The situation with regard to the West Bengal State Electricity Board areas is much worse." The Committee quotes the following comparative figures for electricity tariff.

Average Rates of Electricity Tariff as on August 1, 1967

(Paise per unit)

For	Small industry	Medium industry	Large industry	Very large industry
1. <i>West Bengal</i>				
(a) SEB	19.50	17.80	14.01	13.04
(b) Calcutta	14.00	12.87	13.05	12.11
2. <i>Maharashtra</i>				
(a) Hydro area	16.11	16.77	8.55	7.66
(b) Steam area	..	..	13.51	11.94
3. <i>Tamil Nadu</i>				
(a) Thermal	..	..	18.69	16.98
(b) Others	16.56	15.43	14.61	12.88
4. <i>Gujarat</i>	14.64	13.75	14.50	12.69
5. <i>Bihar</i>	19.00	18.66	11.83	10.33
6. <i>Mysore</i>	13.00	12.45	8.53	7.46
7. <i>Punjab</i>	12.62	11.04	9.14	7.91

On the basis of the above quoted figures, the Survey Committee concluded that "so far as the power rates are concerned, *there is no incentive to locate industries in West Bengal*. While in other States the new units or the industrial units located in new growth area outside the existing congested industrial centres get concessions on tariff as well as on duties in West Bengal the units in the non-congested areas are in practice penalised with a higher rate of tariff." (Mimeo-graphed Report, pp. 14-5, emphasis added.)

With 62.6 miles of railway route and 1200 miles of road per thousand square miles of area, West Bengal stands at the head of other States of the Indian Union in terms of mileage per unit area, though it has less mileage per lakh population than the country as a whole.

Despite the lead enjoyed by West Bengal in certain aspects of transport development, the present level of transport facilities is still short of the requirements for a major spurt in development. This is so, because the expansion of transport capacity has failed to keep pace with the sharp increase in the total volume of traffic within West Bengal since Independence. The quick and considerable expansion of the engineering industry in the Calcutta Metropolitan District, the birth of the new industrial complex at Durgapur, expansion of the capacity of the Indian Iron & Steel Company at Burnpur, increased movement of foodgrains and other agricultural commodities, etc., have put the transport system of this State under severe strains. The defence and security demands of this border State have also imposed a heavy burden on the overtaxed transport resources.

Before the onset of the present recession, transport bottlenecks had often created serious dislocations in the scheduled movement of industrial traffic—as during periods in the Second and Third Five Year Plans.

This is not to deny the impressive expansion and improvement of the transport facilities during the 20 years of planning. Dieselisation and electrification of railways, remodelling of important marshalling yards, route-relay interlocking and automatic synchronised signal system introduced in the busy sections of the Eastern and South-Eastern Railways have considerably increased operational efficiency and line capacity.

In the sphere of road development, a number of major projects have been implemented while others are in the process of implementation. For instance :

National Highway No. 2 Bypass, constructed to link Calcutta and Adi-Saptagram with a view to bypassing the highly congested areas between Vivekananda Bridge and Chinsurah-Hooghly.

National Highway No. 6 (Calcutta-Bombay), widened and developed between Joypur beel and Bihar border with bridges over Rupnarayan and Kangsabati rivers, to provide an unbroken road link between Calcutta and Western and Southern India.

Durgapur Expressway (Calcutta-Durgapur), to relieve the congestion in the Grand Trunk Road caused by the increased flow of traffic between Calcutta conurbation and Asansol-Durgapur complex.

Haldia-N.H. 6 Link to connect the new port with the regional road transport system.

East-West Strategic Lateral Highway across North Bengal to strengthen the links between North Bengal, Assam, Bihar and Uttar Pradesh.

Farakka Barrage Road Link to facilitate north-south movement by eliminating the ferry crossing of the Ganga.

Mention in this connection should also be made of the decision

to construct a *second bridge over the Hooghly* to connect Calcutta and Howrah.

The recently opened 85 mile-long DVC canal linking the Durgapur complex and the Damodar agricultural area with the Calcutta Metropolitan District and Haldia is an important addition to the State's infra-structure. The canal runs parallel to the Grand Trunk Road and has provision for loading and unloading berths at a number of intermediate points. When fully utilised, the canal is expected to carry a total traffic of about two million tonnes a year.

All these significant improvements and additions notwithstanding, West Bengal's transport networks suffer from a number of structural deficiencies viewed in the perspective of the present needs.

The railways, originally designed and constructed primarily to serve the needs of foreign trade, are not yet fully geared to fulfil the demands of a broadbased and regionally balanced economic growth. They even fall short of the requirements of the defence needs in the current contexts. It is estimated that about 25 per cent of the total area of the State lies more than 10 miles away from the nearest railway track. Further, large areas, comprising the sub-divisions of Ghatal and Contai (in the district of Midnapore), Arambagh (in the district of Hooghly), Balurghat (in the district of West Dinajpur), and Toofanganj and Mathabhanga (in the district of Cooch Behar) are untouched by railways.

Even after the laying down of the broad gauge line and construction of the Farakka link, railway connection between south and north zones of the State will continue to remain somewhat tenuous, viewed in terms of the great strategic importance of North Bengal.

Though ahead of other States in the total road mileage per unit area, the proportion of surfaced roads in West Bengal is lower than Kerala and Tamil Nadu. The soft alluvial soil in the greater part of this State makes for a low load-bearing capacity of the unsurfaced roads. Moreover, even the surfaced roads are mostly either too narrow or too weak to bear heavier types of vehicles. The old road-bridges, constructed to carry a maximum load of 10 to 12 tonnes have become unsuitable for the present volume and payload of road transports. Then there are many missing links in the networks of the roads already constructed. This leads to long detours, involving wastage of time and fuels.

Above all, there is still an enormous leeway to be made up, so far as feeder roads linking the interior villages with trunk or district roads are concerned. Without the development of feeder roads, the countryside cannot get linked with the organised sector of the economy and cannot develop itself either in agricultural or in agro-industrial spheres.

Though the infra-structural deficiencies discussed in the foregoing paragraphs are formidable enough, they pale into relative insignificance in comparison with the almost total breakdown of the civic services in the vast Calcutta Metropolitan conurbation which is at once the heart and the nerve-centre of the economy and social fabric of West Bengal. This we discuss in the next chapter.

9. *A City in Agony*

"CALCUTTA is the biggest city in the country. Its problems are national problems—quite apart from the problems of West Bengal, and it is necessary that something special should be done. If the whole city went to pieces, it would be a tremendous tragedy."

—Jawaharlal Nehru

"In spite of its awesome size, its wealth and bustling activity, its vital significance in the national and regional economy, Calcutta is a city in crisis. All who live in this huge metropolitan complex have daily experience of its characteristic problems: chronic deficit in basic utilities such as water supply, sewerage and drainage; and in community facilities such as schools, hospitals, parks and recreation spaces; severe unemployment and under-employment; congested and inadequate transportation; vast housing shortage and proliferating slum areas; soaring land prices and rents; limited State and municipal financial resources to cope with the situation.

"Over the past two hundred years many boards and committees and commissions have met and deliberated on the problems of the city and issued reports calling for remedial actions. The improvements that were subsequently made, if indeed any action was taken, were invariably piecemeal, sporadic, and inadequate to meet the needs of the rapidly increasing population of Calcutta. This has continued to be the case. Obsolescence has not been matched with proper maintenance and new investment, and appropriate expansion and reorganisation of utilities and services have not been undertaken to meet population growth. The increase in population has not been matched by the necessary increase in developed land, and with consequent land scarcities injurious both to economic growth and to individual living standards. Metropolitan Calcutta, in effect, has grown in spite of itself—haphazardly, unsystematically, without a suitable structure or coordination of the

forces of growth, and with a diminishing share for each of its residents in such amenities as the community affords." (CMPO, *Basic Development Plan*, 1966-1986, p. 3.)

In spite of this avowed awareness of the impending tragedy, and in spite of the loud talks about it in many quarters in the country and even abroad and in spite of the tons of papers consumed either in bemoaning the city's sad plight or in drawing up blueprints by the dozen, hardly any purposeful action has been taken in all these years to stem the rot at the roots. As a result, this great hub of Bengal's social and cultural life and the nerve-centre of the entire economy of the country's eastern zone, the city of Calcutta, is today bursting at the seams and its multi-million population, literally stewing in its own juice.

In the following pages, we attempt to present a very sketchy outline of the problems that are gnawing at the very vitals of this sprawling slum that is the city of Calcutta today: inadequate and polluted water supply, garbage heaps strewn all over, stagnant pools of effluent overflowing the streets and hearths, pot-holed roads, overcrowded transport, congested and insanitary housing conditions, continued water-logging during monsoon showers—to mention only a few of the irritants that have become a normal accompaniment of life in this eastern metropolis.

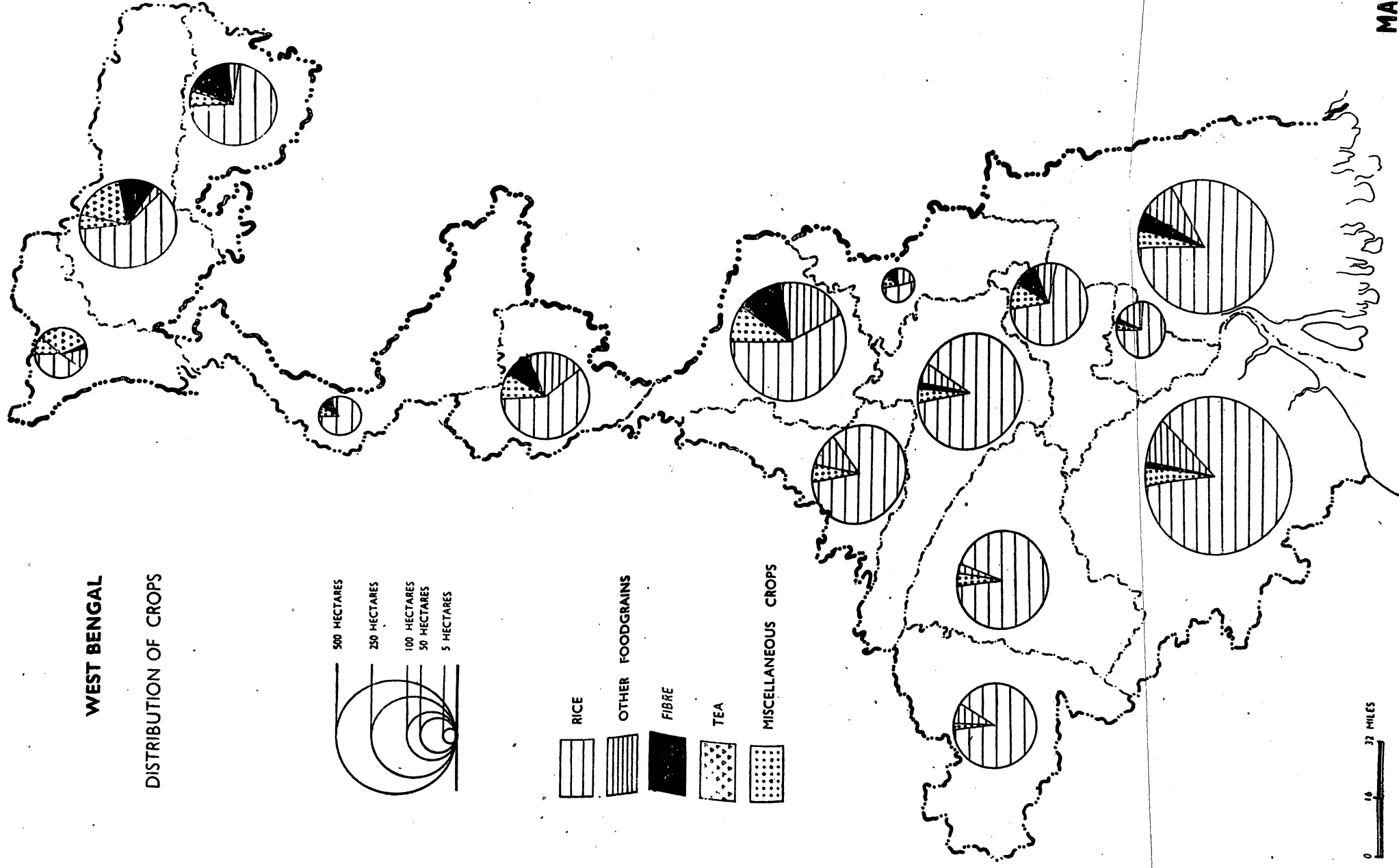
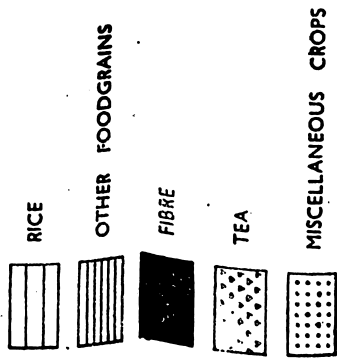
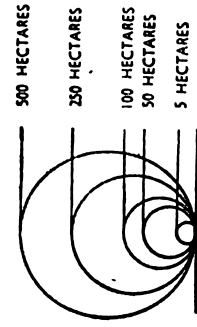
Calcutta, under the jurisdiction of the city Municipal Corporation, has an area of 36.92 square miles and, according to the last census in 1961, had a population of 29.27 lakhs. The Corporation authorities estimate the present population at 35 lakhs with another 10 lakhs of floating population. Since a large part of the latter figure consists of commuters, who make a demand on the civic services for a part of the day only, it may be taken as equivalent to five lakhs of resident population. The total population of the city may, therefore, be safely taken at 40 lakhs.

Even on the basis of the 1961 Census, the density of population per square mile of area was 73,642. The density per square mile of developed area was, naturally, much higher at 102,010, as against 27,900 in New York, 56,640 in Ahmedabad and 41,280 in Delhi. The average residential land density in Calcutta in 1961 was 293.6 persons per acre as against 163.9 in New York, 227.3 in Ahmedabad and 196.0 in Delhi.

Even these average figures fail to bring out the horrible congestion in Calcutta as there is a large degree of variation between some exclusive areas on the one hand and the poorer districts of the city on the other. The average residential density of population for an area of 20 wards in North Calcutta was 590 persons per acre in 1961, or 3.6 times the average for the city of New York. Even this comparison

WEST BENGAL

DISTRIBUTION OF CROPS



0 10 20 MILES

is somewhat misleading as the population in the latter city is housed in skyscrapers, whereas in the Northern wards of Calcutta they live mostly in hovels or in single or double storied buildings.

The overall density of population in Calcutta nearly trebled during the 40 years between 1921 and 1961.

Density of Population Per Square Mile in Calcutta

<i>Year</i>	<i>Persons</i>
1921	26,499
1931	30,722
1941	54,527
1951	67,886
1961	73,642

In the few fields where there has been some expansion in the civic services in the city it has been far too inadequate to keep pace with this growth of population. In other cases the services have actually suffered a loss of capacity because of bad maintenance and breakdowns.

The general picture of sharp and continuous deterioration of the civic services is most vividly reflected in the position of the most vital requirement of human life—water supply.

Indeed, the outfit for a modern water supply in the city was established rather late—in 1870—when a capacity of six million gallons of water supply per day was created, allowing 15 gallons *per capita* per day to a population of about four lakhs then in the city. Through successive increases in the capacity, the supply of filtered water reached 72 million gallons per day by 1944. In 1951, the filtration system was modernised with the installation of a rapid gravitation filter system at the Palta Pumping Station. In 1968, a further expansion of the capacity was taken in hand when the first stage of the construction of a new waterworks with a capacity of 60 million gallons per day at Palta was started. This expansion scheme, however, has failed to progress according to the schedule for want of the requisite material.

At present the total capacity of filtered water supply from Palta is 85 million gallons per day. This is augmented by another 20 to 25 million gallons per day from 175 broad diameter tubewells, of which an average of about 150 only are in working order. Besides, there are many small diameter tubewells, of which again only some 3,000 are in working order at any given time.

The total supply of potable water to the city from all sources is thus about 115 million gallons per day. In course of the last two decades, it would appear from the above, the water supply to the city

was augmented by about 20 million gallons per day, i.e., at the annual rate of increase of one million gallons per day in the capacity. This rate is far below the rate of the growth of the city's population and the consequent requirement of water supply. An expert committee, appointed by the Government of West Bengal, estimated the total requirement of water supply to the city of Calcutta at 300 million gallons per day. The World Health Organisation (WHO) has recommended a standard requirement of 60 gallons *per capita* per day. So, the minimum requirement for the 40 million population of Calcutta is about 240 million gallons per day. The actual supply of filtered water at the moment is, therefore, even less than half of the standard requirement.

Besides, even this low supply rests on a very precarious foundation. A large part of the machinery in the Palta and Talla Pumping Stations requires immediate replacement. Even to this day, some of the pumps are operated by outdated steam boilers which are moreover in a very ramshackle state. A 72" main has recently been laid, but a large part of the city's water-pipe network needs to be replaced. The distribution mains, about 700 miles in length, run by the side of the sewers and contain innumerable leaks and cracks. As a result, during the negative pressure in the water mains, the sewerage seeps into the water mains through the leaks and pollutes the water.

The position at Palta itself is rather alarming due to the silting up of all the four pre-settling and final settling tanks. It is estimated that a total of 200 lakh cft. of silt has accumulated in the tanks. As a result of all this, particularly the extremely worn-out condition of the machinery, the water supply system of the city runs the risk of a total breakdown at any moment. How precarious the position is was dramatically high-lighted in September 1969 when the total water supply system in the city collapsed as a result of some breakdown at the Talla Pumping Station. Water supply to the city was restored only after 48 agonising hours of suspense. In July 1970 again, the Talla pumps went out of operation on account of the failure of the Cossipore generating station of the Calcutta Electric Supply Corporation. On this occasion fortunately it proved possible to resume supply after only three hours. Once again, in August 1970 a fault developed in a bearing in the new pump at Palta leading to a disruption of the city's water supply. These breakdowns occurring with increasing frequency are warning signals which unless heeded in time presage a disaster too horrible for words.

Another major problem of Calcutta's water supply is the high salinity of water in the Hooghly during the dry months when the flow of the fresh water from the upper reaches of the river is extremely low. The present rate of salinity, as we have noted earlier, is over 3,000 parts per million of chlorides as against the human tolerance of about 250

parts per million only. This high rate of salinity is the main cause of the high incidence of gastro-intestinal diseases in the city.

Along with the supply of filtered water, there is a parallel system of unfiltered water supply in the city to the extent of 80 million gallons per day. WHO experts have strongly recommended the abolition of this dual system of water supply as a pre-condition for the prevention of the cholera epidemic and the spread of water-borne diseases in the city. It should be noted that a large part of the slum-dwellers and the pavement-residents have to depend on the unfiltered water supply for their daily requirements and are, as a result, the first victims of epidemics and water-borne diseases.

The underground sewerage in Calcutta dates from 1896 when the northern part of the city covering 7.5 square miles was covered by this system. The southern part of the city was connected with the sewer system in 1905. Two pumping stations at Palmer Bridge and Ballygunge pump out the discharge of the city to the Vidyadhari river. The continuous sewerage disposal accompanied by other natural causes associated with tidal rivers has in the course of years silted up the bed of the Vidyadhari river. Subsequently, a new scheme was taken up to provide for the disposal of sewerage and storm water discharges into the Kulti river—20 miles from Calcutta's eastern border, after treating the sewerage in the sedimentation tank at Bantola. In addition, under a new scheme which came into operation in 1942, there are another ten outlets—through which the storm water is drained out into the Hooghly river and Tolly's Nala during the monsoon. Besides the two major pumping stations—Palmer Bridge and Ballygunge—there are 15 other smaller pumping stations located in different parts of the city.

The sewered area in Calcutta is about 22 square miles only. The remaining part comprising Tollygunge, Gossipore and the greater part of Manicktola, Tapsia, Tangra and Tiljala covering an area of 17 square miles remains unsewered to this day. In other words, about 44 per cent of the total area of the city of Calcutta still remains unsewered. Drainage of this latter area is effected through the surface drains and *nikashis* which ultimately flow out into the adjoining channels of Bagjola and Kristopur through the small drainage pumping stations.

There are two kinds of sewers in the city—big diameter sewers of a total length of one hundred miles and small diameter sewers totalling 335 miles. It is estimated that more than two hundred million gallons of sewerage have, in normal times, to be pumped out daily. During the monsoon, the quantity of sewerage to be pumped out is naturally much larger, due to accumulation of storm water.

The sewerage originally designed for a population of six lakhs is now being pressed into service for a far larger city of about four million

population. Due to the enormous increase in the population and primitive mode of work in removing silt from the underground drains, both brick sewers and pipe sewers have silted up to a great extent, and their carrying capacity is thereby considerably reduced. It is estimated that the accumulation of silt has narrowed the sewer channels by about 50 per cent. In 1951 the accumulation was about 21 lakh cft. and in 1962 it was estimated to have gone up to 46 lakh cft. Thus the accumulation of silt had been taking place at an average rate of 2.3 lakh cft. a year. And since no effective remedial measures have been implemented between 1962 and 1970, a further 20 lakh cft. of silt is likely to have accumulated in the sewers. Indeed the actual accumulation is likely to be even greater as the drainage pumping stations run with worn-out machinery are finding it more and more difficult to cope with the increasing volume of disposable sewerage.

To make matters worse the storm water outfall channels are, in the absence of any proper de-silting work, also silting up at the rate of 1.5 feet annually. The sedimentation tank at Bantola, long out of commission, has added to the problem of silting.

The position in the unsewered area is even more precarious. With the increase in population and due to natural causes the surface drains, *nikashis* and outflow canals are rapidly getting choked. Though a number of schemes to augment and improve the drainage system has been discussed and adopted nothing has actually been done so far. In the meantime, the silting up of the Hooghly river has added to the problem. During the monsoon the outlets on the bank of the Hooghly cannot be opened as the high level of the river water would then flow into the city instead of accumulated storm water flowing out to the river. Faulty planning in respect of some recent development schemes has aggravated the situation. For the purposes of the Salt Lake Reclamation Project the northern Salt Lake and the so-called New Cut Canals on the eastern fringe of the city have been filled up, thus blocking the outflow of storm waters from the entire eastern periphery of the city comprising Ultadanga, Manicktola, Narkeldanga and Belia-ghata.

To sum up : accumulated neglect and faulty planning have created the pre-conditions for the water-logging of vast parts of the city in the following ways :

- (i) Sewer capacity has not been able to keep pace with the expansion of the city and growth of its population ;
- (ii) Silt has been accumulating in the sewers resulting in decreased carrying capacity ;
- (iii) Outfall and storm water canals have silted up ;
- (iv) Pumping capacity of the drainage pumping stations is proving inadequate due to the wear and tear of the old machinery and

lack of replacements ;

- (v) Unplanned development of the city has resulted in the creation of low lying pockets without any arrangement for drainage ;
- (vi) A large unsewered area continues to exist ;
- (vii) Choking and filling up of the surface drains and *nikashis* is taking place at a rapid rate.

Till 1899 the night soil of the city was collected and carried by sweepers and carted out to the dumping ground outside the city. With the commissioning of underground sewers, the owners and occupiers of the houses in the sewered part of the city were obliged under a legal enactment to connect their privies with the sewer system. But even then, as a large and growing part of the city remain unsewered, the manual method of night soil disposal has continued to operate to this day. There are at present about 40 thousand service privies in the city, each contributing, it is estimated, about three gallons of night soil accumulation daily, adding up to a total of 120,000 gallons for the city as a whole. The Calcutta Corporation has at present 22 night soil cars, 25 trollies and a few tractors aggregating a daily removal capacity of 40,000 gallons of night soil. Thus, the Corporation is in a position to clear only one third of the total daily accumulation and the rest remains undisposed. A part of this enters into the city's surface drains in various ways.

The situation is no better in regard to the removal of refuse and garbage. Up to 1940, horse-drawn carts were being used for removing garbage from dustbins and the Corporation's railways used to carry them to the Dhapa dumping ground. In 1940 the Corporation shifted to a system of garbage clearance by motor trucks. The present strength of the Corporation's fleet of garbage carriers is 384 trucks. But due to breakdowns an average of not more than 175 trucks are available for service at any time. Taking Calcutta's population to be four million, the daily accumulation of garbage in the city, according to the international standard of one-fourth tonne of garbage *per capita* per year, is estimated to be about 2,700 tonnes a day. According to the calculations of the city municipal authorities, the quantity of refuse to be removed daily is about 2200 tonnes. If the 175 trucks can be pressed into service each day and if they contribute their scheduled three trips, each time carrying 3 tonnes of refuse, then the total quantity of garbage removed would come to 1575 tonnes only, which is 25 per cent less than the daily accumulation, according to the Corporation's own estimates. The garbage vans are scheduled to carry the refuse directly to the dumping ground at Bantola, eight miles from the city. Another bottleneck that holds up the dumping operation is the lack of a proper approach road to the dumping ground, as a result of which the garbage vans very often throw the refuse at the very entrance of the dumping

ground near the inhabited locality. The local residents naturally resist the dumping in their neighbourhood and serious clashes often ensue preventing the dumping operations. The single bulldozer on duty at the dumping ground is incapable of lifting the garbage daily dumped, besides, the breakdown of the bulldozer frequently prevents it from operating at all. As a result of all this a large part of the daily accumulation of the garbage of the city's streets remains uncleared and a good part of it flows into the underground sewers, clogging up the drainage still further. It has been estimated by experts that more than 50 per cent of Calcutta's refuse consists of combustible material which can be burnt in an incinerator to produce clinkers in huge quantities which can in turn be used for road making. The heat of the incinerator can also be used to produce electricity. But the only one incinerator set up some years ago by the Calcutta Corporation has been lying idle for a long time. As a result of the near breakdown of the conservancy service, the city of Calcutta once hailed as a city of palaces has turned into one vast slum, fertile breeding ground for epidemics and diseases of all varieties.

The impact of the inordinately high increase in the density of population per residential acre in the city on the housing conditions can easily be imagined. A study by the Calcutta Metropolitan Planning Organisation on the basis of the 1961 Census data shows that household population per room in Calcutta is 2.80 and over 25 per cent of housing units had no permanent walls, i.e., walls made of concrete, cement, stone or burnt bricks.

Averages, however, warns the CMPO, "tend to understate the problem. The distribution of housing space is similar to that of income: a relatively small minority at the top have a disproportionately large share. This means that the majority are living at standards far below (the average)..... Countless families also are forced to live in unbelievable congestion in one room, under intolerable conditions of sanitation and water supply. Under such circumstances healthy family living, even in its most humble form, is impossible". (CMPO, *op. cit.*, p. 28.)

A considerable amount of information about housing conditions in Calcutta has been presented in a survey conducted by the University of Calcutta during the three years—1954-55 to 1957-58. The statistics given in the survey are no doubt rather out-of-date today in view of the rapid increase in the pressure of population on the static housing resources of the city. In the absence of any other more recent source of information on the subject, we are quoting below some tell-tale figures from this old report.

The survey revealed that only about 7.5 per cent of city's households had separate flats or houses. Nearly one half, 44 per cent to be

exact, lived in joint or semi-pucca houses, another 28 per cent lived in kutchha houses ; the remaining 20.5 per cent lived in messes, hotels, shops, etc. The survey further revealed that 57.6 per cent of the households had only one living room, another 20.6 per cent 2 living rooms ; 54 per cent of the multi-numbered households had *per capita* room space of 30 square feet or less ; 49 per cent of the total households did not have electricity connections ; 51 per cent of the joint houses did not have bathrooms, nor did 85 per cent of the shop dwellers, 48 per cent of the messes and hotels, 86 per cent of the kutchha houses. Indeed, 32 per cent of kutchha households and 51 per cent of the joint houses did not have any water tap. 77 per cent of the total households had to share lavatories with other households and more than 10 per cent did not have any lavatory at all. 66 per cent of the kutchha houses, 49 per cent of the semi-kutchha houses and 32 per cent of joint houses had their cooking arrangements in the living rooms. [S.N. Sen, *Calcutta—A Socio-economic Survey*, Bookland (P) Ltd., Calcutta, pp. 122-47.]

If this be the general living conditions in the city, the picture of the slums or bustees can be easily imagined. According to Calcutta Corporation sources there are at present 1169 bustees in the city, with a population of 647,268. This is clearly an under-estimation. According to the Corporation's definition, bustees situated on a plot of less than 10 cottahs of area, are not included in the above estimate. Other estimates put the figure at 3,000 bustees with 189,000 families consisting a population of about 8 lakhs. According to the Calcutta University Survey referred to above only 2 per cent of the bustee households have a separate lavatory, water tap and bathroom ; one in seven of the households have no lavatory at all and 82 per cent have to share lavatories with other individuals or families. More than 44 per cent of the households do not possess any water tap and 54 per cent have to share water taps with other households. The more than 17,000 service privies in the bustees are not cleared regularly. The shocking conditions of living of the Calcutta bustee dwellers can be realised from the following excerpts from a note on a bustee in the Kidderpore area submitted by the investigators engaged in the above-mentioned survey :

"Most of our sample families live in bustees. They could be called houses only in an over-stretched sense of the term as they hardly protected their inmates from the rain..... Almost cent per cent of the bustee rooms, we would not hesitate to point out, are non-ventilated, and receive little sunlight in any part of the day or fresh air in any part of the year. No modern facilities are available to these bustee people. Very few bustees possess water taps within their boundaries. In the majority of the cases, municipal taps far away are to be used, the number of users ranging often from 200 upwards per

tap. The queues before such taps are, indeed, a disturbing spectacle. No separate bath, even for the females, are available and the demoralising influence of such a state of affairs may be easily imagined. At Ekbalpur lane, we found scores of people standing in front of a municipal latrine as they do not have latrines in their houses. The municipal latrines are cleaned not more than twice a month. As to civic facilities like education, we are ashamed to record our findings. They are simply non-existent in this area. Only rarely did we find a school-going boy. Not infrequently we were deeply moved by the miserable condition of the children in these areas and realised the painfulness of collecting statistics of such misery and not being able to do more than that." (*Ibid.*, pp. 160-61.)

Another acute problem faced by the citizens of Calcutta is the extremely poor condition of the city's 273 miles of surfaced roads which are full of pot-holes and dug-outs. During the last 20 years the number of motor vehicles plying on the city's roads has doubled. The heavy duty motor trucks and omnibuses have increased at a still higher rate. The State Government today collects a large amount of revenue at an increased rate of levy from these motor vehicles, but it does nothing towards the maintenance or repair of the city's roads, nor does it grant an equitable share of the revenue derived from the motor vehicle taxes to the Corporation. As a result, the roads are deteriorating fast and creating conditions for a higher incidence of road accidents and quicker wear and tear of the motor vehicles.

The extremely crowded condition of the city's public transport begs description. A survey of the rush hour passenger traffic on certain office-bound routes, undertaken by the University of Calcutta some years ago, may provide, in the absence of current data, some measure of the overcrowding. "Even though," the report said, "the capacity of a doubledecker bus is taken at 80 and that of a first-class tram car is taken at 50, which are far in excess of the scheduled seating capacities and cover liberal allowance for standing accommodation, the percentage of overload went up to as high as 66 per cent in the case of buses and as high as 75 per cent in the case of trams." [S. K. Bhattacharyya, *Passenger Transport Problem in Calcutta*, Bookland (P) Ltd., p. 8.]

The survey from which the above-quoted figures were derived relates to the year 1958. Since then the inadequacy of the city transport system has become much more acute—for the simple reason that instead of matching the continuous increase of the population, the public transport fleet, both State Transport Corporation's buses and tram cars, has been depleted. According to statistics published by the Government of West Bengal the numbers of STC vehicles put on the road declined from 666 in 1962-63 to 593 in 1968-69 and passengers

served by them from 503.5 million to 372.7 million. The number of tram cars put on road was 410 in 1962; it came down to about 350 in 1969. In one year, 1967-68 to 1968-69, the number of passengers carried by tram cars decreased by 236 lakhs from 3232 lakhs to 2996 lakhs.

The extension of some of the privately run suburban bus routes up to the city centre in the recent years has not made the slightest impact on the growing overcrowding of the city transport fleet.

With the continuous expansion of the suburban settlements around the city, the number of commuters has been sharply rising. It has been estimated that about five lakh persons daily come to the city for the day through Howrah and Sealdah railway stations. The narrow approaches to these two dispersal points for the commuters further serve to clog the main arteries of city transport during the morning and evening rush hours during weekdays.

As a result of the overcrowding of public transports and the congestion in the streets, the rate of accidents has been rising sharply. In the five years from 1960 to 1965, the number of street accidents rose from 14,554 to 17,504, i. e., by 20 per cent.

While the civic problems of the city have been heading towards a catastrophic denouement, the institutions charged with the maintenance and improvement of the civic services have reached a stage of deadlock for want of finance. Never really noted for efficiency or a spirit of public service, the city municipal corporation has for long years been in the red, dependent on regular and *ad hoc* subventions from the State Government for its bare existence. Recently it entered, it seems, a stage of total bankruptcy. *The Statesman*, Calcutta, reported on August 4, 1970 :

“The Calcutta Corporation is facing a grave financial crisis with regard to the payment of salaries during the current month to its 33,000 employees. A shortage of Rs. 10 lakhs has to be made up to complete the payment within the stipulated period—the first 11 working days of the month. All depends on collections at counters in the different District and Central offices and collections by bailiffs.

“Payment for essential supplies have had to be stopped by the municipal authorities. Quite a number of contractors on Monday approached the municipal Commissioner for realization of their bills, but he pleaded his inability to pay them.

“The Commissioner, who had requested the West Bengal Government to pay forthwith Rs. 40 lakhs, representing the dearness allowance subvention for the quarter beginning from July, received only Rs. 30 lakhs—Rs. 20 lakh as subvention and Rs. 10 lakhs as a ways and means advance. Earlier, the Government has paid on the D. A. subvention account Rs. 20 lakhs to the Corporation. The Government’s quarterly

D. A. subvention to the Corporation amounts to Rs. 60 lakhs.

"Next month, the position will be even worse. Before the Pujas, the Corporation has to pay an additional month's salary to its employees as a Puja advance together with the monthly salaries for both August and September. A total of Rs. 175 lakhs will, therefore, have to be disbursed as establishment payments. Apart from this, about Rs. 70 lakhs will be needed to meet contractors' bills, the municipal authorities stated."

An earlier report about the Calcutta Improvement Trust (CIT) in the same newspaper said :

"Twenty-four schemes of the Calcutta Improvement Trust have had to be deferred for lack of funds and there is little hope that these would be taken up in the near future as the CIT is suffering from an acute financial crisis. Indeed, so desperate is the situation that fears have been expressed that the Trust, which is the only planning and executing agency for Calcutta's development, might cease to function before long.

"The main reason for the crisis, according to a CIT spokesman, was the failure of the Corporation to contribute its dues which amount to Rs. 60 lakhs per year. As the Corporation has not paid its dues for the last three years, the arrears had amounted to Rs. 2 crores on March 31, the spokesman said. Instead of making any effort to pay the entire dues, the Corporation was said to have set aside only Rs. 50 lakhs in its current budget.

"Since the contribution from the Corporation is the CIT's main source of revenue, the non-payment over the last few years was said to have put the Trust's finances totally out of gear. On top of this, a proposal of the Civic Standing Finance Committee to impose a ceiling of Rs. 10 lakhs as the Corporation's contribution has caused concern to the CIT and it has already registered its objection to the suggestion."

It should be obvious from the passages above that Calcutta's civic problems have reached awesome proportions. The conditions of the Howrah-Bally city area across the river and the 30 and odd municipalities in the Calcutta Metropolitan District are even worse. This vast conurbation is, to modify the biological metaphor, both the heart and the nerve-centre of West Bengal at the same time. Unless and until this vital organ is put on a healthier basis, no improvement or development of this State is at all possible.

Numerous schemes have been discussed during the last decade. Institutions have also proliferated. The Calcutta Metropolitan Planning Organisation (CMPO) has been in existence since the early sixties. In 1966, a new body, the Calcutta Metropolitan Water and Sanitation Authority was created. Currently still another body, called the

Calcutta Metropolitan Development Authority is in the process of formation. But none of the basic problems has been attacked with the seriousness they deserve. Now a point has been reached where an explosion is imminent unless even at this late stage there is concerted action on a scale commensurate with the magnitude of the crisis.

10. Agriculture—Retrospect and Prospect

No economic or social problem of present-day West Bengal can be understood in depth without reference to the Permanent Settlement, introduced by Lord Cornwallis in 1793. The agrarian framework that evolved in the course of time following the introduction of the Permanent Settlement came to exert powerful influence on the entire life and living of the people of Bengal and all its marks have not been effaced, even 15 years after its statutory abolition. Whether it be the question of agricultural stagnation, or retardation of industrial growth, or the peculiar traits and idiosyncracies of the Bengali intelligentsia, the specific structural and superstructural features of socio-economic life in Bengal are all directly or indirectly the products of the agrarian set up created by the Permanent Settlement. So it will not be irrelevant if our attempt at comprehending the crisis that pervades West Bengal today starts with a brief historical survey of the Permanent Settlement and its socio-economic impact on Bengal. In this, we shall base ourselves on the *Report of the Land Revenue Commission, Bengal*, presided over by Sir Francis Floud which submitted its report in March 1940.

The Permanent Settlement "recognised that the East India Company, in its capacity of sovereign authority, and zamindars or farmers through whom the State's share had been collected, had a joint interest in that share of the produce from every acre of land, which was the traditional property of the State. It fixed the revenue at ten-elevenths of the assets, which left to the zamindars one-tenth of the revenue which they paid. In addition, the zamindars were to be given the benefit of any future increase in the value of the State's share, which might result from the extension of cultivation or from other causes, and the State promised not to make any demand 'for the augmentation of the public assessment in consequence of the improvement of their respective estates'. In other words, the State declared that it would for ever afterwards be content with the sum then assessed as the

cash revenue of each estate and the property that it gave to the zamindars consisted of one-tenth of the State's share, plus the increment that might be derived from the extension of cultivation or other causes. In addition, the zamindars were declared to be the proprietors of the soil, and were deliberately given all property rights which could not be proved to be an encroachment on the prescriptive or customary rights of the tenants. These rights were not defined in the Regulations because on the information then available to the authors of the Permanent Settlement it proved impossible to do so." (Govt. of West Bengal, *Report of the Land Revenue Commission*, p. 18.)

Preoccupied with wars outside Bengal as it was, "the primary object of the East India Company in reorganising the revenue administration was to safeguard the punctual receipt of the land revenue". (*Ibid.*, p. 19.)

The effects and impacts of the Permanent Settlement were described by the Floud Commission as below :

"The limitation of the revenue payable by the zamindar, coupled with their exemption from any income tax on agricultural income throws an undue burden on other classes of tax payers. This discrimination in favour of land has had the effect of creating a bias in favour of investment in land rather than in industrial enterprises, and has contributed to the over-capitalisation of rent-receiving as opposed to productive purpose either in agriculture or industry". (*Ibid.*, p. 35.)

This created in the course of time a many-tiered heirarchical structure of landed interests in between the state on the one hand and actual tiller of the soil on the other. "One of the most serious defects of the present system", continues the Commission, "is the excessive amount of subinfeudation which it has encouraged. The margin between fixed land revenue and the economic rent of the land has prompted the creation of a number of intermediate interests between the zamindar and the actual cultivator which in some districts has reached fantastic proportions. The report of the Simon Commission pointed out that in some cases as many as 50 or more intermediate interests have been created between the zamindar at the top and the actual cultivator at the bottom. This has resulted in dissipating responsibility for the best use of land in the national interest among a host of rent-receivers, all of whom have to be supported by the labour of the cultivator, and none of whom have either the incentive or the power to exercise any control over the use of the land. It is not too much to say that the extent of subinfeudation has become an incubus on the working agricultural population, which finds no justification in the performance of any material service so far as agricultural improvements are concerned, and fails to provide any effective means for the development of the resources of the land.....

"Moreover this army of rent-receivers is increasing in number each year. The Census figures show an increase of 62 per cent between 1921 and 1931, and since 1931 there has been a further process of sub-infeudation below the statutory raiyat, which will swell the figures still more. At the same time a steady reduction is taking place in the number of actual cultivators possessing occupancy rights, and there is a large increase in the number of landless labourers. Their number increased by 49 per cent between 1921 and 1931. They now constitute 29 per cent of the total agricultural population and the next Census will show a considerably larger increase....." (*Ibid.*, pp. 36-7.)

The burden of legal rent apart, there was an increasing load of illegal exactions on the cultivating peasantry. "In spite of the prohibition", says the Commission, "of abwabs and other exactions in addition to rent.....there is still evidence of their continuance..... Indeed, it is common knowledge that naibs and other agents of the rent-receivers frequently live on a scale far above that which the salaries they receive from their employers would permit....." (*Ibid.*, p. 38.)

As a result of the heavy burden, the peasantry was increasingly being dispossessed of their land and rendered destitute. A by-product of the process was the sharp rise in the number of the share-croppers. "The rapid increase", the Commission continues, "in the number of bargadars (share-croppers) is one of the most disquieting features of the present time, and is an indication of the extent to which the hereditary raiyats are losing their status and being depressed to lower standard of living.....a large and increasing proportion of the actual cultivators have no part of the elements of ownership, no protection against excessive rents, and no security of tenancy." (*Ibid.*, pp. 38-9.)

As an accumulated result of all this, a growingly large number of the agricultural holdings was becoming uneconomic. The Commission quoted the Director of Land Records and Surveys to show that the percentage of families holding two acres or less was 41.9 per cent and the percentage holding between two and four acres was 20.6 per cent. (*Ibid.*, p. 86.)

In an attempt to make an overall assessment of the effects of the Permanent Settlement, the Commission concluded that it "has imposed on the Province an iron framework which has had the effect of stifling the enterprise and initiative of all the classes concerned. If it was the case that Lord Cornwallis hoped that it would result in the creation of a class of landlords who would supply capital for the improvement of the land and the extension of cultivation and if he aimed at the establishment of a landlord and tenant system such as then existed in England, his hopes have not been realised." (*Ibid.*, pp. 35-6.)

Indeed the memorandum on the Land Revenue Policy of the Indian

Government issued in 1902 had much earlier referred to the "evils of absenteeism, management of estates by unsympathetic agents, of unhappy relations between landlord and tenant and of the multiplication of the tenure-holders or middlemen between the zamindar and cultivator" and it described the Permanent Settlement as a system of agrarian tenure, "which is not supported by the experience of any civilised country, which is not justified by the single great experiment that has been made in India and which was found in the latter case to place the tenants so unreservedly at the mercy of the landlords...."

The key to the economic stagnation in Bengal, the Floud Commission made it clear, lay in the particular land relations, represented by the Permanent Settlement.

First, Lord Cornwallis' improvisation, under the exigencies of the East India Company's war-time demands for steady revenue, had set in motion a process of continuous decline in agricultural production and productivity, with no link in the entire agrarian chain having any interest in investing capital in agricultural enterprise.

Secondly, with the growing impoverishment and dispossession of the cultivating peasantry, the market for industrial consumer goods was being subjected to a contracting pressure and, hence, the stimulus for a steady expansion of industrial capacity was lacking.

Thirdly, the scope for getting a tax-free share in the rack-rent extorted from the cultivating peasantry inhibited the investments of risk-capital in industrial enterprise on the one hand and encouraged the over-capitalisation of rent-receiving on the other.

And, lastly, although the Permanent Settlement by helping the growth of a leisure-class, in a way, contributed to the flowering and flourishing of Bengali literature and other cultural pursuits, it, at the same time, gave birth to ego-centric tendencies and an attachment to their parcel of land among the educated classes and thus weakened their enterprise.

On the strength of its findings, a majority of the Floud Commission recommended the abolition of the Permanent Settlement, with compensation, and the acquisition of all intermediary interests in land by the state. "No half measures," the report said, "will satisfactorily remedy its (Permanent Settlement) defects....the policy should be to aim at bringing the actual cultivators into the position of tenants holding directly under the Government". The Commission was fully aware of the fact that "this proposal involves a fundamental change in the rural economy of Bengal, affecting vitally the whole social and economic structure...." (*Ibid.*, p. 42.)

The Commission's report was submitted during the early phase of World War II. The intensification of the war-crisis and the political upheaval that started shaking the country from end to end precluded

any action on the vast scale that the agrarian reorganisation involved.

It was eight years after the cessation of hostilities and six years after independence that the Government of West Bengal finally put an Act on the Statute Book with a view to abolishing the Permanent Settlement. The Estate Acquisition Act, 1953 which came into force in the following year abolished all intermediary interests in land except in the city of Calcutta and vested it in the State on payment of a total compensation of Rs. 70 crores.

Subsequently, another amending legislation was enacted putting a ceiling of 25 acres on any single holding. Fisheries, orchards and plantations were exempted from the purview of this provision.

As a result of the enforcement of this provision about ceiling, a total area of 4.71 lakh acres of cultivated land was deemed to be surplus land besides another three lakh acres of orchards, fallow and waste land. By February 1965, 4.35 lakh acres was already taken possession of by the Government. Though the Act provided that cases of transfers made after the introduction of the bill could be entered into and transfers declared to be malafide could be cancelled and the entire surplus land could be taken over, there have been widespread reports of illegal transfers having been effected to evade the provisions of ceiling. According to a study made by Dr. S. K. Basu and Dr. S. K. Bhattacharyya of the University of Calcutta, not less than 105,600 acres of agricultural land had been transferred for the purpose of evading the ceiling legislation. "We found", they say "that during our reference period the proportion of cultivable land transferred by ways other than inheritance to near relatives like son, father, brother, wife, etc. varied greatly between 10 per cent and 25 per cent of the total area of such transfers in the eight districts of our survey. Also our survey largely confirms the belief that quite a number of malafide transfers were made in anticipation of the law. In most districts, the process began very likely in 1951, though for the purposes of our study we decided to lean on the conservative side and restricted the anticipatory period back to 1952 only....

"Taking the year of transfer and relationship with the transferee together, we found that during 1952-54 the proportion of cultivable area transferred to relatives was 15.3 per cent of the total such area in four of the northern districts: the corresponding percentage in four of the southern districts was 11.1 per cent. Allowing for other considerations the proportions transferred malafide were taken as 12 per cent and 9 per cent respectively in the two regions.

"The study of the nature of conveyance by relationship with the transferee and by year of transfer gave us no reasons for scaling down our previous estimates of proportion of malafide transfers. In this connection, we found that considerably large proportion of non-in-

heritance transfers were attested with the help of unregistered instruments whose dates are, naturally, subject to suspicion. Of course, the data indicate that malafide transfers were made in no small measures by means of registered instruments also. Other studies on the basis of supplementary information on 'reason of transfer', holding of transfer before 1953 and on 'reason of transfer' as given by the transferee, broadly corroborated our previous estimates of proportion of malafide transfers." (Government of India, *Implementation of Land Reforms*, pp. 145-46.)

Even these figures put forward by Dr. Basu and Dr. Bhattacharyya, quite high though they are, have subsequently been found to be underestimates of the extent of malafide transfers. The nature of the evasion of the ceiling provision was revealed in a typical case, reported by a leading Calcutta daily. "The belief", the report says, "that many large landholders in West Bengal made benami transfers of land to evade the provisions of the Estate Acquisition Act in respect of the ceiling on holdings has been generally confirmed by the West Bengal Government's recent drive to undo such transfers.

"There are cases where landowners have realised several lakhs of rupees as compensation from the Government without losing an inch of land from the hundreds of acres they boast of.

"A typical case recently unearthed relates to a zamindar, formerly a minister who, jointly with his brother, owned over 1000 acres before the Act came into force in April 1955. Apparently he had come to know well in advance that the legislation would be introduced; the joint property was then fast transferred under the ryotwari arrangement among five sons of one of the brothers who, in their turn, distributed parts of their land among their wives and children as sub-ryots. Among the benamdars were also servants of the family and others.

"Since such distribution of land covered less than half of the total holding, 534 acres of farming land were declared fisheries although the land was being used for farming.

"As the Act came into force, both sub-ryots and ryots (who were mostly members of the same family) started paying rent directly to the Government. As the original owners of the land—the two brothers and then ryots (i. e. the five sons) lost the rent they used to get, they were entitled to compensation from the Government. They received about Rs. 7 lakhs as compensation while retaining within the family possession whatever land they owned originally". (*The Statesman*, Calcutta, April 5, 1968).

Dr. Karunamoy Mukherjee, Head of the Department of Economics, Visva Bharati University, quoted this report in a paper submitted to the Seminar on India's Social Situation, sponsored by the Indian Statistical Institute in January 1969. He also narrates the following

conversation with a rural landholder from the Burdwan district who also belonged to the same teaching profession and had managed to retain a large area of the benami land.

Mukherjee : How do you manage it? Are not you reported against ?

Reply : Who will report it ?

Mukherjee : Local land committee or Panchayat, for instance.

Reply : I am in it myself.

Mukherjee : May be, but radical workers are also there.

Reply : Leaders who count are also in it.

Mukherjee : Then they sure would report.

Reply : Their interests and mine are the same and we have come to a mutual understanding not to run down each other.

As a result of the exposures of the various subterfuges resorted to for evading the ceiling legislation and under the pressure of public opinion which has grown very vocal in recent years, the administrative machinery in West Bengal launched a vigorous campaign for the detection and recovery of hidden land held in excess of the ceiling. Since 1967, the State Government has been able to add about 4.0 lakh acres to the area of the land vested in the Government. A recent official account says :

“Up to 31st May 1970, 8.50 lakh acres of agricultural land and roughly 5 lakh acres of non-agricultural land have vested in the State. In addition about a million acres of forest land have also come under the State. *Statistically the achievement cannot be said to be meagre.... Yet it is generally believed that there is much more to be done regarding recovery of hidden land.*” (*West Bengal, Information Weekly of the Government of West Bengal, Calcutta, September 5, 1970, p. 63. Emphasis in the original.*)

That the various agrarian reform measures failed to effect any significant change in the pattern of land distribution will be evident from the following two comparable tables. The first table gives the data derived from the sample survey conducted in 1950-51, i. e. before the enactment of the reform laws, as a part of the first agricultural labour enquiry. The second table gives the results of the National Sample Survey, 16th round and relates to the year 1959-60, i. e., five years after the ceiling law had come into force. It should also be mentioned that the concepts of ‘cultivation holdings’ and ‘operational holdings’ adopted by the first and the second surveys respectively are almost identical in definition.

It will be seen that the pattern of land distribution at these two points of time—i. e., before and after the agrarian reforms—has remained unchanged. Indeed, if any thing, the proportions of dwarf holdings

(up to 1 acre) and uneconomic holdings (up to 5 acres) have gone up during the intervening period—from 16.9 per cent to 18.38 per cent and from 67.5 per cent to 74.04 per cent respectively.

Distribution of Cultivation Holdings—1950-51

		<i>P. C. of holdings</i>	<i>P. C. of area</i>
Up to 1 acre	—	16.9	1.4
1.1 acre to 2.5 acres	—	21.2	7.7
2.5 acres to 5.0 acres	—	29.4	22.6
5.1 acres to 10.0 acres	—	22.8	33.0
10.1 acres to 25 acres	—	8.5	25.1
Above 25 acres	—	1.1	10.2

Source : Agricultural Labour Enquiry, cited in Govt. of India, *Progress of Land Reforms*, 1963, pp. 168-9.

Distribution of Operational Holdings—1959-60

		<i>P. C. of holdings</i>	<i>P. C. of area</i>
Up to 1 acre	—	18.38	1.95
1 acre to 5 acres	—	74.04	41.21
5 to 15 acres	—	24.21	49.30
15 to 50 acres	—	1.72	9.02
Above 50 acres	—	0.03	0.39

Source : N. S. S. Report on Land Holdings—16th round.

As a result of the evasion of the ceiling legislation large areas of farm land have been retained by the larger landholders which they still get cultivated on crop-sharing basis. The following excerpts from the report of Mr. A. N. Seth, Director, Land Reforms, Planning Commission, will give a broad idea about the dimension of share-cropping in West Bengal : “Quite a large area is cultivated under barga (share-cropping) system although the size of the problem varies considerably from district to district. Frequently petty owners took some land on barga to improve the size of their holding. In the survey and settlement operations conducted in 1954-1956, about 7.7 lakh persons were recorded as bargadars. According to 1961 Census, about 34 per cent of the cultivators were bargadars—about 13.4 per cent pure

bargadars and 21 per cent as part-owner-part-bargadars. In the survey sponsored by the Research Programmes Committee of the Planning Commission, it was estimated that during 1960-61 the area under the barga system varied between 25 and 46 per cent of the total cropped area in the eight districts to which the survey related and that 11 to 38 per cent of area were cultivated through landless labourers.

"The data collected in the Census on bargadars appeared to be incomplete. The number of bargadars recorded in the settlement operations during 1954-56 exceeded the number indicated in the 1951 Census. According to several settlement officers, the data collected in the settlement operations were also underestimates. The R. P. C. (Research Programmes Committee) survey observes that 'only in about one out of every four plots, the bargadar seems to have his name recorded as such on the settlement record'. The size of the bargadars problem may be much larger than what is indicated by the Census and the settlement operations.

"It is difficult to say categorically whether the size of the problem has been increasing or decreasing. Different estimates of it have been made at different times. According to Floud Commission (1940) 22.5 per cent of the area was cultivated by bargadars. This was supported by the 1941 Census. According to the Ishaque Survey, in 1944-45, about 24.8 per cent of the area was cultivated through bargadars. This, however, related to the whole of Bengal as before Partition. Compared to these estimates, the data collected in 1961 Census, would seem to indicate that the problem has grown in size considerably. Some of the settlement officers had also observed in their reports that the problem was on the increase. Due to imposition of ceiling.....the magnitude of the problem will have decreased. Even so, the area under barga has been estimated by the Revenue Department of West Bengal Government at about 34 lakh acres. As the plots under cash crops such as jute, potato and sugarcane are generally cultivated by the owners themselves, the area cultivated by bargadars constitutes about 34 per cent of the area under rice." (Govt. of India, *Implementation of Land Reforms*, pp. 147-48.)

The system of share-cropping, it is well known, is an extremely unproductive method of cultivation. "The system", says a commentator, "suffers from many disadvantages. There is no certainty that the *jotedar* will retain the same bargadar for the next season, and this lack of security does not encourage the bargadar to look beyond immediate returns. Further, instances are not uncommon where the *jotedar* loans paddy to the bargadar during the pre-harvesting season and collects the loan plus 'interest' in kind from the next harvest." (C. R. Irani, *op. cit.*, p. 18.)

Mr. A. N. Seth of the Planning Commission probes a little deeper into the effect of share-cropping on the efficiency of farming. "Culti-

vation through bargadars", says he, "is not conducive to agricultural development. Even where a bargadar is not evicted, he does not feel secure. The provision of resumption (by the landholders to the permissible limit under ceiling law) hangs as Damocle's Sword on his head. He is required to part with half of the produce. If he invests on agricultural development and there is an increase in the yield, the landlord takes away half of the increased yield without any contribution by him. This acts as a disincentive and consequently little investment in the development of land is made by bargadars. They hesitate to use fertilizers. The cost of fertilizer may not be less than the value of half the increased produce, which would be his share. It was estimated by the Adviser, Programme Administration, in his tour report that by applying Rs. 20 worth of ammonium sulphate the return by way of extra paddy would be Rs. 35 per acre. If a bargadar was to give away half of this increase as landlord's share, he would get a net return of Rs. 17.50 as against investment of Rs. 20. A bargadar would be a fool to make such an investment. Cropsharing might have been all right in the past when the main investment in agriculture was labour. If money investment is to be promoted in manures, fertilizers, seeds and insecticides, etc., cropsharing had to go." (Govt. of India, *Implementation of Land Reforms*, p. 149.)

That the persistence of the basic agrarian structure underneath some changes on the surface has led to the continuation of some of the stagnating influence on West Bengal's agriculture will be evident from the following figures, culled from the voluminous paper 'Contrasts in Indian Agriculture' by the Agro-Economic Research Centre of the Delhi University.

The pressure of population on the available cultivable land has been steadily rising in West Bengal. The ratio of persons engaged in agriculture to the total working force went up from 50.8 per cent in 1951 to 53.8 per cent in 1961. Due to the retardation of the development of the non-agricultural sectors, a part of the new additions to the rural working force goes on crowding the available cultivable land. This makes it possible for the larger landholders to extort onerous and illegal terms for share-cropping from the landless labourers or dwarf-peasants. This in turn has a depressing effect, for the aforesaid reasons, on level of productive efficiency of agriculture. In an earlier chapter, we have quoted comparative figures of the rate of agricultural growth in different States of India. We have seen that West Bengal occupies one of the lowest places in regard to the growth of agricultural productivity. Compared to the average rate of 1.77 per cent per annum for India as a whole, 4.09 per cent in Gujarat and 3.04 per cent in Tamil Nadu, the growth rate in West Bengal was only 1.34 per cent per annum. The growth rate is much lower in the case of foodgrains. According to the

data available relating to the period 1952-53 to 1961-62, the linear growth rate of productivity in the case of rice was 0.03 per cent in West Bengal as against 1.40 per cent for the country and 1.69 per cent in the case of Punjab. The growth rates for foodgrains in general during the same period was 0.18 per cent in case of West Bengal, compared with 1.45 per cent for the all-India average and 1.84 per cent for Punjab.

Between 1956-57 and 1962-63, the consumption of nitrogenous fertilisers in West Bengal increased at an annual rate of 0.30 per cent as against 0.44 per cent in the country as a whole and 0.62 per cent in Punjab, 1.11 per cent in Kerala, 1.25 per cent in Andhra Pradesh and 1.57 per cent in Tamil Nadu. These figures are exclusive of the tea, coffee, and rubber plantations.

The gross value of agricultural output per person engaged in agriculture between 1952-53 and 1961-62 actually *declined* in West Bengal at an annual rate of 1.84 per cent as against the *rise* at the rates of 4.58 per cent in Punjab, 3.56 per cent in Madhya Pradesh, 3.78 per cent in Gujarat, 2.62 per cent in Kerala, 1.05 per cent in Maharashtra and 0.33 per cent in the country as a whole.

Inter-State Variations in Output of Rice Per Acre

(In kgs.)

	Average for 1952-53 to 1954-55	Average for 1962-63 to 1964-65
1. Andhra Pradesh	464	520
2. Bihar	263	353
3. Maharashtra	382	416
4. Gujarat	260	342
5. Kerala	401	559
6. Tamil Nadu	478	612
7. Mysore	435	581
8. Orissa	236	384
9. Punjab	387	461
10. Uttar Pradesh	236	305
11. West Bengal	427	459
12. India	336	408

Source : Table B. 4, *Contrasts in Indian Agriculture*, mimeographed paper by Agro-Economic Research Centre, University of Delhi.

The stagnant condition of agriculture in West Bengal is most vividly reflected in the movement of output of rice per acre in this State, compared to the all-India average and the figures for the other

States. It will be seen from the table above that compared with the average for 1952-53 to 1954-55, the output of rice in India as a whole rose by 21 per cent during 1962-65. The increase in per acre output in Orissa was 60 per cent. In most of the other States the rise amounted to 30 per cent, while in West Bengal it was only 7 per cent.

This stagnation of agriculture in West Bengal is having extremely adverse repercussions on the economy of this State.

Though about 87 per cent of the acreage is devoted to foodgrains, as against the national average of about 75 per cent, there has always been a large gap between the standard requirements and the internal supply of cereals, as may be seen from the table below :

Requirements and Internal Supply of Cereals

(^{'000 tonnes})

<i>Year</i>	<i>Net yield of cereals</i>	<i>Estimated population in lakhs</i>	<i>Consumption requirement*</i>	<i>Deficit (—)</i>
1965	5154.6	392	6490.1	(—) 1335.5
1966	4560.7	402	6655.7	(—) 2095.0
1967	4537.4	412	6821.2	(—) 2283.8
1968	4936.3	422	6986.8	(—) 2050.5
1969	5302.2	438	7245.1	(—) 1942.9

*At the rate of 16 ozs. (453.6 grams) of cereals per head per day as recommended by Price Enquiry Committee.

Source : Govt. of West Bengal, Food & Supplies Dept.

Similarly, the jute textile industry which occupies a unique place in the State's economy and is one of the principal foreign exchange earners in the country is almost continuously plagued by a shortage of raw jute of a fair quality.

Most important of all, this low efficiency of agriculture has kept the absorbing capacity of the spatially vast rural market pegged at a low level and thereby acted as a damper not only to the industrial *development* in the State, but, as we shall see in the next chapter, even to the fuller *utilisation* of the existing productive capacity of industries.

Indeed, we are faced with a paradoxical situation in this State. On the one hand, a considerable part of the capacity of the engineering industry which could supply agriculture with more efficient and

improved tools and implements has been lying idle ; on the other hand, agriculture, carried on in the ageold traditional style has been acting as a drag on industrial development. The future of this State depends on the ability to cut across this vicious circle.

The technological possibilities of agriculture in West Bengal have been demonstrated by two recent developments. As a result of the extension of the area under the high-yielding varieties of paddy from 26,000 hectares in 1966-67 to 567,000 hectares in 1969-70, the output of rice touched an all-time high of 6.35 million tonnes—the highest among the States of India. The potentialities in the sphere of jute cultivation are also inspiring. The experiments in the intensive cultivation blocks, carried out under the aegis of the Jute Industries' Research Association have revealed that "where the cultivators' manures were supplemented with quantities of urea or ammonium sulphate, the average yields of jute ranged from 3.46 bales to 3.83 bales per acre while the average range throughout all the jute growing States in the country during the same period was only 2.25 bales to 3.20 bales per acre. A specially intensive programme was also launched during the year on a more restricted scale involving ten acres of the land area of each block.....The average yield of these 'all-input' plots amounted to 4.47 bales per acre of capsularies and 3.51 bales per acre of olitorious, as against average yields of 3.2 bales of capsularies per acre and 2.3 bales of olitorious per acre in the areas adjoining the intensive cultivation blocks. These results confirm yet again that jute yields can be increased appreciably, even with the existing strains, through the judicious use of fertilisers." (Indian Jute Mills Association, *Report of the Committee*, 1968, p. 63.)

While the successes achieved by the HYVP in the case of rice and wheat and 'all-input' method in jute cultivation in the experimental blocks demonstrate the technological possibilities, a recent survey carried out by Indian Oxygen Ltd. (IOL) in four districts of West Bengal reveals the psychological awareness and receptive attitude of the cultivating classes in the State (See Appendix B). What is still lacking is the absence of a favourable institutional framework for the meeting of the two—viz., new technology and the man behind the plough. In the words of the Industrial Economist of the CMPO : "Whenever there is a situation when a particular society is incapable of using the maximum of what is technologically possible and thereby forcing the people to live in poverty although plenty is possible the remedy may be sought either in the non-utilisation of the technological possibility by keeping the resources idle or by attempting to change the existing socio-economic formation so that the new society may be in a position to reap the full benefit of the technology already developed or (that) is being developed.....the determining factor then becomes the

ability to change the existing socio-economic formation.” (Dr. A. N. Bose, *Regional Development—A Pre-Condition for Metropolitan Development*, Indian Journal of Regional Science, Vol. I, No. 2, 1969.)

The favourable institutional framework, needed for a broad-fronted agricultural break-through, embraces not only a more thorough agrarian reorganisation on the basis of a rigorous implementation of the land reform laws with a view to removing the much deplored vestiges of the Permanent Settlement, but also more pervasive and responsive extension services. The serious gaps in the present agricultural extension services were recently noted in a newspaper report. It said :

“Power threshers whirr in remote villages of West Bengal for the newly-harvested wheat crop, shallow tubewells turn arid areas into green pockets and there is an increasing demand from the peasants, specially small farmers, to know more about pesticides, pumps, fertilizers and high-yielding seeds. But this is just one side of the picture. On the other, there is widespread despair for lack of water, specially in deep tubewell areas, and complete absence of any guidance for the use of improved seeds and chemical fertilizers leading to uneconomic investment and delay in getting timely loans from banks.

“The magnitude of the task envisages a much more powerful organisation to take stock of the farmers’ difficulties and make on-the-spot decisions for prompt action through a network of technologically-oriented but practical young men to bridge the present gulf between the State agricultural farms’ experiments and the guideless groping efforts of small farmers in the adjoining areas.” (*The Statesman*, Calcutta, April 15, 1970.)

11. *Industry in West Bengal— Its Strength and Weaknesses*

THOUGH it still ranks second in the level of industrialisation among the States of the Indian Union, West Bengal has been steadily losing ground as the most favoured location of industry for the last few decades. Indeed, even in pre-Independence days, as the process of industrial development in the country gathered momentum and hitherto under-developed areas entered into the broad stream of development, the earlier growth centres like Bengal and Bombay started losing some of their pre-eminence. The table below shows the distribution of industrial workers in the major provinces of British India in 1921 and 1939. It will be seen that during this period the share of British India as a whole in the employment of industrial workers came down from 91 per cent to about 85 per cent and the share of the more backward Indian States increased from about 9 per cent to over 15 per cent.

Per Cent of Industrial Workers

<i>Province</i>	<i>1921</i>	<i>1939</i>
Madras	8.4	9.7
Bombay	25.3	23.0
Bengal	35.1	28.7
U. P.	6.3	8.0
Punjab	3.2	3.9
Total British India	91.1	84.9
Indian States	8.9	15.1
Grand Total :	100.0	100.0

Source : Govt. of India, *Location of Industry in India*, 1945.

Within British India, the share of the two most developed provinces, namely, Bengal and Bombay, declined from 35.1 per cent and 25.3 per cent to 28.7 per cent and 23.0 per cent respectively. At the same time the shares of Madras, U. P. and Punjab, the relatively less industrialised regions, increased from 8.4 per cent to 9.7 per cent, 6.3 per cent to 8.0 per cent and 3.2 per cent to 3.9 per cent respectively.

Commenting on this development, an official publication noted, "Bengal and Bombay have already begun to lose their leadership and the tendency towards dispersal of industry.....is clearly reflected in the above table.

"The figures in the above table reflect two important features of industrial location in India: Disparities between different regions in respect of industrial development and the marked trend towards dispersal of industries which is tending to reduce these disparities, as a result of the rapid industrial development in provinces other than Bengal and Bombay and the movement of industry from British India to the States." (Govt. of India, *Location of Industry in India*.)

In the post-Independence period, the reduction of regional disparity has been one of the major objectives of planned development and a number of measures was adopted with a view to achieving it. Besides, a degree of preference to the less developed areas in the matter of selection of the location for the central industrial projects, the equalisation of steel prices and subsidising coal prices for the areas remote from the coalfields as well as the rapid growth of electricity generation capacity in new areas have actively helped the process of wider dispersal of industries. Added to the above, the clogging of the port of Calcutta and the deterioration of other infra-structural services as already discussed, have tended to militate against a high rate of growth in West Bengal. Indeed, a sharp deterioration of industrial relations and in the law and order situation have actually given rise to a process of flight of enterprise from this State in recent years.

In spite of all this the Calcutta conurbation still enjoys a number of locational advantages which have contributed to the continued growth of industries in this region. The most important of these favourable factors are: (i) the easy availability of skilled labour, (ii) the proximity to and good communication with a large hinterland and (iii) access to the large money market in the city of Calcutta. In this last respect, it should be remembered that West Bengal, though considerably behind Maharashtra, still accounts for a relatively large proportion of the commercial bank deposits and credit. In 1967, this State accounted for Rs. 570 crores of deposits and Rs. 619 crores of credit as against Maharashtra's Rs. 971 crores and Rs. 886 crores respectively. In terms of percentage, West Bengal's shares were 14.5 per

cent of the deposits and 22.5 per cent of the credit as against Maharashtra's 24.7 per cent and 32.4 per cent respectively.

The continued attraction of West Bengal for industrial location is further brought out by the number of applications for industrial licences. Out of a total of 14,084 applications during the period 1956 to 1966, West Bengal accounted for 2,296 applications or 16.30 per cent of the total. Here again, although considerably behind Maharashtra's 3,645 applications (25.88 per cent), West Bengal's share was larger than the aggregate of the four States, Tamil Nadu (1,263), Mysore (420), Kerala (438) and Assam (152).

Indeed the relative locational advantages enjoyed by West Bengal over other regions will be evident from the figures of comparative profitability. The table below relates to the rates of profits and dividends in the engineering industry in the country as a whole and the eastern region. Since for all practical purposes the figures for the eastern region represent West Bengal, it will be seen that between 1961 and 1966, the rates of profit-after-tax and dividends as percentage of net worth in West Bengal were all along higher than the averages for the country.

	Profit After Tax as p. c. of Net Worth		Dividend Paid as p. c. of Net Worth	
	<i>India</i>	<i>Eastern region</i>	<i>India</i>	<i>Eastern region</i>
1961	10.9	10.3	6.5	6.9
1962	8.2	8.6	5.5	6.5
1963	9.8	10.7	5.5	6.4
1964	11.7	14.0	5.5	6.5
1965	11.3	13.5	5.5	6.5
1965*	12.3	14.4	6.2	7.2
1966	10.5	12.2	5.4	5.8

*The coverage for 1966 was less than that for the earlier years. For the sake of comparison, 1965 data have been repeated with a similar coverage as 1966.

Source: Indian Engineering Association, Calcutta, *Handbook of Statistics 1967*, pp. 87-8.

The resultant of the two contradictory pulls of the development process during the 15 years of planning—the policy of dispersal and the economies of location—has been that the ex-factory value of output in West Bengal rose more than fourfold between 1951 and 1966, but the growth was considerably lower than the overall national growth of 551.8 per cent.

Gross Ex-factory Value of Industrial Output*(In Rs. crores)*

	<i>India</i>	<i>West Bengal</i>
1951	1307	356
1966	7213	1453
P. C. Increase in 1966 over 1951	551.8	408.1

Based on Census of Indian Manufacture.

Whatever the relative lag in the overall rate of growth, the industrial structure in West Bengal acquired a stronger foundation during this period through the expansion of the engineering industry. We have seen earlier that on the morrow of Independence, in 1948, out of a total of 601,772 factory workers in West Bengal, 345,010 or 57.3 per cent were employed in the textile industries as against only 137,435 or 22.8 per cent employed in engineering and metal industries. In 1965, however, the engineering industries accounted for 341,000 workers out of a total of 867,000 or 39.3 per cent.

In terms of productive capital and value added by manufacture, the engineering industries accounted for still larger shares in 1965—50.12 per cent and 48.77 per cent respectively.

Position of Engineering Industry in West Bengal, 1965

	<i>All industries</i>	<i>Engineering industry</i>	<i>P. C. share of engineering industry in the total</i>
Productive capital (Rs. crores)	1,219	611	50.12
Value added by manufacture (Rs. crores)	365	178	48.77
Employment ('000)	867	341	39.33

Source : Annual Survey of Industries 1965, Census Sector.

This transformation of West Bengal's industrial structure, while it has potentially strengthened the economy of the State, has also rendered it more vulnerable to vicissitudes of the industrial cycle. The engineering industries which largely provide inputs to other industries are

more susceptible to the changes in the tempo of economic activities than the consumption-oriented industries. In the context of our strivings for industrialisation, the engineering industries of this State are a valuable asset for the country's self-reliant growth. But during a period of sluggishness or recession in the economy, this sector of industry is more easily thrown out of gear. That this actually happened, we discuss in a subsequent chapter.

The industrial economy of West Bengal, however, cannot be properly assessed in general terms only. For a proper understanding of its strength and weakness, it has to be split into two broad sectors—engineering and non-engineering. The following data culled by the Survey Committee on the Engineering Industry, appointed by the Government of West Bengal, throw useful light on a number of vital aspects of the working of the industrial complex in this State.

The key questions demanding answers are those relating to the comparative productivity of labour and capital as between the two broad sectors in West Bengal as well as between this State and the other States of India.

The table below gives the figures for value added per employee in manufacturing industry.

It will be seen in terms of over-all figures, labour productivity in West Bengal was lower than not only the other two developed States, Maharashtra and Tamil Nadu, but also the all-India average. But these over-all figures tend to conceal the fact that the value added per employee in the engineering industry was higher not only in relation to the all-India average, but also as compared to Maharashtra and Tamil Nadu.

**Value Added Per Employee in Manufacturing Industry
(Census Sector) — 1965**

(In Rupees)

	<i>Engineering</i>	<i>Non-engineering</i>	<i>All industries</i>
West Bengal	5,213	3,558	4,211
Maharashtra	5,003	5,543	5,379
Tamil Nadu	4,938	4,100	4,342
India	5,015	3,946	4,266

But, as the Survey Committee points out, the relatively higher labour productivity in the engineering industry of West Bengal seems to have been achieved at the cost of capital productivity. As the table below shows both capital-output and capital-labour ratios were higher

in West Bengal compared to those in Maharashtra and Tamil Nadu, though in both the cases they were lower than the all-India averages.

**Capital-Output and Capital-Labour Ratios
(Census Sector)—1965**

	<i>Engineering</i>	<i>Non-engineering</i>	<i>All industries</i>
I <i>Productive capital per Rs.1,000 of value added</i>			
West Bengal	3,430	3,252	3,340
Maharashtra	2,357	2,574	2,512
Tamil Nadu	2,509	3,859	3,415
India	3,651	3,782	3,736
II <i>Productive capital per employee</i>			
West Bengal	17,884	11,573	14,060
Maharashtra	11,790	14,266	13,513
Tamil Nadu	12,390	15,822	14,830
India	18,312	14,921	15,938

What is perhaps more significant is that the productivity of labour, i.e. value added per employee, was, before the onset of the recession, rising faster in the case of the engineering industry in West Bengal than not only the industry in general in this State, but also both the engineering sector and the industry in general in the country as a whole. This relative superiority of the engineering industry in West Bengal is in striking contrast to the deficiencies of the State's non-engineering sector which are evident from the fact that in spite of the former's contribution, the rise in value added per employee in all industries in West Bengal rose at a lower rate than the country's averages—148.6 per cent as against 150.0 per cent.

Value Added Per Employee—West Bengal and India

(Rupees)

	<i>West Bengal</i>			<i>India</i>		
	<i>1959</i>	<i>1965</i>	<i>P.C. increase</i>	<i>1959</i>	<i>1965</i>	<i>P.C. increase</i>
Engineering Industry	3,322	5,213	156.9	3,442	5,015	145.7
All industries	2,833	4,211	148.6	2,824	4,266	150.0

The capital-output and capital-labour ratios that we discussed above are, however, somewhat deceptive as indices of productivity. This is so, because of the extremely low ratio of utilisation of the installed capacity in the State as much as in the country as a whole. In an extremely painstaking study of this question, Dr. A. N. Bose, Industrial Economist of the Calcutta Metropolitan Planning Organisation (CMPO) has tried to work out the broad dimensions of increase in production as well as productivity per unit of capital that could be achieved with an integrated programme of a fuller utilisation of the installed capacity [See A. N. Bose, *Implications of Capacity Utilisation*, Das Gupta & Co. (P) Ltd., Calcutta.] Dr. Bose also refers to various other commentators and documents pinpointing the same malady.

For instance, according to a study by E. Lobel and P. Das of the Indian Statistical Institute, Calcutta, in 1954 the rate of utilisation of capacity was 54.0 per cent in the case of consumers goods industry, 10.7 in producers goods industry and 34.1 per cent in the case of semi-manufactures or intermediate goods.

Based on the data released by the Ministry of Commerce and Industry, Government of India, it has been concluded that "though there has been some improvement in the utilisation of capacity, it must be remembered that capacity in most industries is calculated on a single shift basis. An idea of the extent of unutilised capacity can be had from the fact that even single shift capacity is not fully utilised in 85 per cent of the industries".

The Third Five Year Plan also took note of this problem, even if only casually, when it referred to the cases "when there are wide gaps between capacity and production or where, by multi-shift operation or the addition of balancing equipment, it is possible to secure greater output at diminishing cost." (See Bose, *Ibid.*, p. 28.)

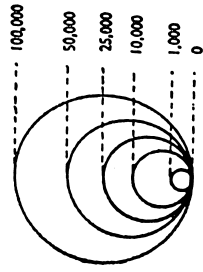
In the table below, Bose works out the total volume of output that is possible to achieve by the full utilisation of the existing capacity and the final bill of goods that may be thereby obtained after providing the increased inter-industry demand.

We need not concern ourselves either with the methodology for this calculation or with the degree of accuracy of the figures. Even granting a wide margin, there can be no doubt that an integrated planning within the present constraints of power supply, limitations of shop floor space, etc., the volume of the final bill of goods could be nearly trebled.

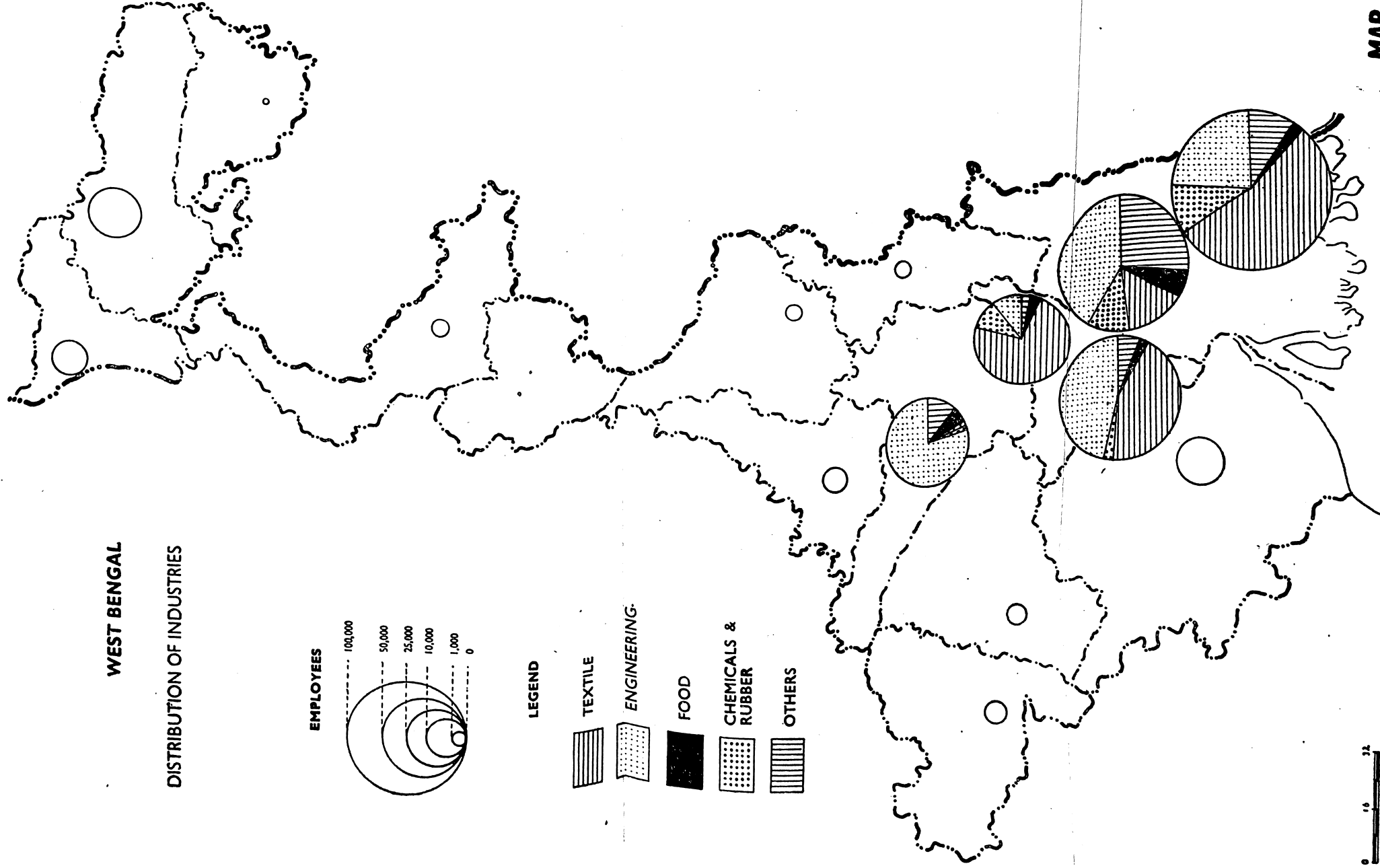
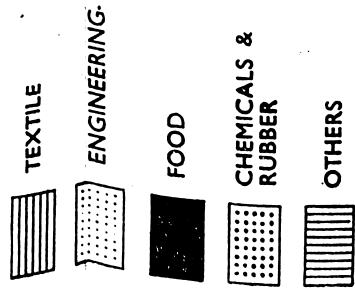
WEST BENGAL

DISTRIBUTION OF INDUSTRIES

EMPLOYEES



LEGEND



0 10 20

Estimated Volumes of Full Capacity Outputs in the Manufacturing Industries and Corresponding Volumes of Inter-Industry Delivery and Final Bill of Goods along with Its Present Level in Calcutta Metropolitan District

(Rs. million)

Sub-sectors	Estimated Full Capacity			Present level of final bill of goods
	Output	Inter-industry deliveries	Final bill of goods	
1. Engineering	12,214	4,558	7,653	2,274
2. Chemical	3,794	1,519	2,275	638
3. Wood	480	100	380	57
4. Cement	..	..	..	-25
5. Non-jute Textiles	2,003	1,122	881	415
6. Jute Textiles	4,087	718	3,369	2,026
7. Glass & Ceramics	552	-39	513	154
8. Leather & Rubber	3,941	178	3,769	1,163
9. Paper & Printing	2,824	544	2,280	690
10. Food & Drink	2,100	527	1,573	511
11. Miscellaneous	378	409	-31	-91
Total (Full Capacity)	32,379	9,714	22,665	..
Total (Present Level)	11,511	3,699	7,812	7,812
P.C. Increase	181	163	190	..

Source : Dr. A. N. Bose, *Implications of Capacity Utilisation*, Das Gupta & Co. (P) Ltd., 1965, p. 72.

The increasing lag between capacity creation (represented by the increase in productive capital) and income generation (represented by the volume of value added) was also noted by the Survey Committee on the Engineering Industry in West Bengal, quoted earlier. In the table below and the comments following it, the Committee rightly ascribes the inability to use fully the productive potential arising from investment to "socio-economic administrative constraints".

**Relative Rates of Increase in West Bengal—1959-65
(Census Sector)**

<i>Item</i>	<i>Rate of increase per year compound</i>		
	<i>Engineering</i>	<i>Non-engineering</i>	<i>Total</i>
1. Productive capital	25.0%	18.7%	20.1%
2. Value added (income)	16.8%	7.9%	11.7%
3. Employment	8.3%	2.6%	4.6%
4. Value added per employee (labour productivity)	7.8%	5.2%	6.8%
5. Value added per unit of productive capital (capital productivity)	-6.5%	-9.0%	-8.2%

“The gap between capacity creation and effective demand brought out to the fore during the present recession, thus had its roots in the preceding period, and manifested itself in the above differential between the rate of increase in investment on the one hand and those of income and employment on the other. The rate of decrease in capital productivity, partly due to socio-economic-cum-administrative constraints resulting in the inability to use fully the productive potential arising from investment, has further retarded the rate of increase in income and employment. And this in its turn widened further the gap between capacity creation and effective demand.

“The era ending in 1965 was, therefore, an era mainly centered on capacity creation. For the final consummation of this era it need now be supplemented by an era mainly centering on effective demand creation. The sooner the need for this transition is appreciated, the sooner shall we be able to solve the present crisis of transition.” (Govt. of West Bengal, *The Report of the Survey Committee on Engineering Industry*, op. cit.)

In addition to the common problems of industry in general in West Bengal, the major industries in this State suffer from some specific problems as well, which further aggravate their difficulties.

Engineering industry apart, the other major industries in West Bengal are jute textiles which once enjoyed world monopoly and paper and cotton textile which account for 20 per cent and 10 per cent of the country's output respectively. On the world plane, jute textiles

appear to be in a moribund stage. Increasing competition from substitutes—paper and synthetics—and recourse to bulk carriage have been increasingly cutting into the market of jute bags. Faced with this challenge, the jute industry over the years growingly resorted to the manufacture of carpet backing. Now, even, this market is being threatened by woven polypropylene.

Within the framework of an increasingly narrow market, India is losing further to the aggressive advance of the Pakistan industry, for a number of reasons. Firstly, Pakistan enjoys a natural superiority in both the quality and quantity of the fibre. Secondly, Pakistan which built up her industry from scratch, installed most up-to-date and hence much more efficient machinery which India is yet to match through the programme of modernisation. And, finally, Pakistan has adopted a package of export promotion measures like the enhancement of the export bonus voucher subsidy on jute goods by 5 per cent to 35 per cent. Besides stiffening her direct competition with India in the world market for jute manufactures, Pakistan has recently launched a movement from the flanks as well by lowering the export prices of raw jute by £4 a tonne and the extension of the bonus voucher subsidy of 10 per cent for the first time on raw jute with a view to stimulating the competitive strength of the other competitors of India in the field.

The main problem of West Bengal's paper industry is raw materials. Though modern paper-making industry was founded for the first time in West Bengal, after the partition this truncated State has been bereft of any suitable raw material for paper-making. Most of the State Governments have started charging exorbitant rates of royalty from other States as compared to those charged from paper mills in their own States. This discriminatory rate of royalty, coupled with rising transport and haulage charges have raised the cost of bamboo considerably for the mills in West Bengal.

The problems of the cotton textile mills in West Bengal are more serious. Out of a total of 41 mills in the State with a labour force of about 35,000, 16 mills with a complement of 20,000 workers are now closed. Of these, 11 are likely never to reopen. Looms and other machinery of these mills, a spokesman of the Bengal Mill-owners' Association, recently pointed out, were very old and almost in a wrecked condition and their managements are not in a position to invest in the latest types of machinery. Except for a small number of mills, founded in the post-Independence period, all the rest are operating with worn out machinery. The extreme paucity of resources of the cotton textile industry in West Bengal is adversely affecting their working in other respects also. "Many of the weaker units," says a newspaper report, "found it uneconomic to buy cotton at high prices and so were forced to suspend their operations. Notwithstanding the

Government's basic objective of arresting speculation in cotton by the imposition of credit restrictions and stock limits, these proved more burdensome to the weaker units in the industry, for they had been unable to cover their near-term requirement before the imposition of the restrictions. It has not been possible for them to raise the minimum working capital. Thus instead of producing a salutary effect on runaway cotton prices, the credit restriction aggravated the plight of weaker units." (*Hindusthan Standard*, Calcutta, June 20, 1970.)

Most of the problems of the engineering industry arose from the recent recession which we discuss in a subsequent chapter.

12. Problems of Small Industries

ONLY some twenty years ago, West Bengal had a leading place in the field of small manufacturing industries in the country. Howrah, known as the 'Sheffield of India', was recognised as the largest centre of small engineering units and a symbol of industrial craftsmanship acquired by Indian labour. Gone are those days. In contrast to the growth of small-scale industries at the national level (of a little over 382,000 machine tools installed till 1968, about 161,000 or 42.3% were made in the small sector), West Bengal is not only lagging behind, but fast moving towards disaster.

Why this fall? It leads us almost inevitably to the question : what made the small industries to grow in the past?

The development of small-scale industries is inseparably connected with the general industrial growth. The reason is obvious and could easily be traced in the particular input-output relationship that obtains between the large and the small industrial sectors. It is observed almost universally that in a general inter-industry framework the small-scale sector plays only the follower's role. The leader is obviously the large-scale sector. The development of small-scale industries is therefore a function of the growth of large industries.

Industrialisation in India, in the modern sense of the term, began towards the end of the 19th century. The flow of primary investments was around the field of building up infra-structure facilities. By 1870, more than 7,700 km of railway track had been laid at a cost of Rs. 900 million, the corresponding figures for 1900 was 39,000 km against a total investment of Rs. 3,295 million. By 1902 a sum of £ 24 million had been invested in irrigation works and more than Rs. 200 million in road building.

This development of infra-structure facilities came as a booster to the industrial development of the country. It was particularly around Calcutta, the biggest commercial centre of Asia at the time

and the 'Second City of British Empire', that a number of British-owned large and medium industries were found to have flourished. During the same period came up Bengal's jute industry and coal extraction industries in the Ranigunj coalfield area. Tea and indigo plantations got off to a start around the same time.

The development of small industries that followed from this primary industrialisation was rather slow. It was for the simple reason that the then small industrial units had neither the ability to produce large industry's sophisticated inputs nor had necessary capital investments for producing them. Those were, in fact, traditional repairing shops run by local craftsmen (mistries) like carpenters (chutar), blacksmiths (kamar), indigenous welders (jhalaiakar) or pattern-makers (chanchkar). The large sector used to import most of their inputs from abroad.

But as observed by Sir Bradford Leslie, the eminent British Engineer who headed the old Howrah-Calcutta bridge construction in 1873, those mistries were quite promising and had already developed an industrial bent of mind. The Albion dock was built by a Bengali entrepreneur with two British engineers in 1874. During that construction those small repairing units came extremely helpful and earned commendation for their excellent craftsmanship.

Towards the close of the century a process of structural transformation could be noticed in the small repairing units that were spread around Calcutta's industrial belt. The traditional 'mistries', who had by then gained sufficient experience of modern industrial craftsmanship, found it profitable to extend their field of activities to the spheres of modern industries. This was, obviously, resulting in the transformation of repairing shops into production units.

In this way the small production sector emerged into the industrial picture of Bengal. For the next half a century or more, this sector recorded a spectacular growth.

Till the Great Depression of thirties, the growth of Bengal's small scale industries is found to be steady. A break came with the depression, which through its effects on the large industrial sector, affected rather rudely the growing small scale industries. However, the trend picked up as the depression gave way to recovery and continued to gather momentum till the Second World War broke out in 1939. During the War period, a sudden leap could be noticed in the general growth rate which in turn resulted in an accelerated growth in the small scale sector. With the cessation of hostility, the growth rate came down from the wartime high, but again picked up with the coming of the Korean boom.

The period following independence is marked by a steep rise in the small scale sector. Three successive plans gave a big push to West

Bengal's engineering industries. In its wake, the small scale sector also developed at a greater pace. In 1961 about 40 per cent of total employment (i. e. more than 7 lakhs) and 25 per cent of total industrial income (i. e. more than Rs. 62 crores) of West Bengal were provided by the small scale sector.

The development in the period following the Sino-Indian War in 1962 and the Indo-Pak conflict in 1965 surpassed the earlier record. But, it is during this period that some of its inherent weaknesses and newly acquired problems became pronounced.

The recent history is well-known. It tells the story of a sad decline and stagnation in the general economic climate of this State. Take for example Howrah, which is the largest centre of the State's small scale industries. A recent survey, made by the Calcutta University's Statistics Department, has revealed a very poor picture of this industrial township. It has shown that out of its 2,500 small engineering units that entered in the Trade Licence Register, 295 units, or 11.8 per cent, had to wind up their establishments and 16, or 0.6 per cent, transferred to places outside Howrah.

The growth pattern of small scale sector in West Bengal has been sporadic, entirely on its own initiative, without any planned guidance or aid from the State Government.

The small industrial units are, by and large, heavily concentrated in the Calcutta Metropolitan District. Three districts around, forming the Calcutta conurbation, namely, 24-Parganas, Howrah and Hooghly, have 3,257 registered small industrial units amongst 4,248 registered units in West Bengal excluding its northern Districts. The corresponding figure of employment is 70,056 against 82,759.

This heavy concentration around Calcutta industrial area has given rise to a regional imbalance which affects the economic health of West Bengal. Whereas Howrah is the location of 1,728 units, employing more than 38 thousand, the district of Birbhum, within 100 miles from Calcutta, presents an extremely poor picture, with 143 units, employing 193 only.

This imbalance has resulted in the over-crowding of the Calcutta Metropolitan District and relative backwardness in the rest of the State.

The small industries sector in West Bengal has a very restricted pattern of growth. Except for certain consumer good industries like lock and key making in rural areas, a few oil mills, rice processing units like husking mills, handloom products, brick laying industries, etc., the small industrial units have a pronounced engineering bias and are by and large operated as an adjunct to large engineering outfits. Such a state of affairs can be contrasted with that in Punjab where small units operate mainly in consumer goods sector.

Inter-locking of small units is an interesting feature of West Bengal's small industries. Take for example, the Howrah industrial complex. Relatively large units there are in a way ancillaries to the neighbouring larger industrial concerns, and have, as satellites, a host of smaller units around them. These central units secure orders from large industries, themselves execute a part of it and the rest are farmed out to their dependent units.

This inter-dependence can be attributed to two specific reasons related to the processes of manufacturing. In the first place, there are some products, the manufacture of which require one or a very limited number of operations. Both the central unit as well as the dependent units in most cases are provided with the facilities for those operations (as for example Lathe operation). In those cases the farming out of orders arises out of the consideration of the timely and speedy implementation of the job. Secondly, there are a number of products which require multiple operations for their manufacture. It might so happen that the central unit is not provided with all the facilities required for those operations. In that case, it has to depend on the dependent units clustered around it.

This phenomenon of inter-locking accounts for both the strength as well as weakness of West Bengal's engineering industry. It is the source of their strength because when the economic climate is favourable, there is a more even distribution of work. Over and above this, often the small units are provided with advances by the central units. But difficulty crops up when the central units get a sudden jolt from a general market decline. It leads the dependent units to the verge of a complete stoppage of work and it happens almost instantaneously.

The present stagnation in West Bengal's small engineering industries is not an isolated phenomenon; it is a part of the general crisis that has affected the State's economy. This, of course, does not mean that small scale industries do not have problems of their own. They do, but it is necessary to remember that apart from their specific problems, there are many they share equally with their large counterparts as they have to function within the general industrial framework. Even the problems that are specifically theirs have a close resemblance to those that confront the major industrial units.

Take for example, the problem of raw materials shortage. Large and small industries alike have been facing this problem for quite a long time. But in the case of small industries this is so acute that a recent West Bengal Government publication has referred to it as a 'crippling shortage'. The position regarding the very short supply of scarce categories of iron and steel products since the decontrol of steel is perhaps the most critical. A general study has revealed that

on an average West Bengal small industries have not been receiving more than 3 to 5 per cent of their requirement of steel sheets and other flat products during the last three years. The position regarding imported raw materials is also far from being satisfactory.

There are three reasons for this 'crippling shortage'. The first one can be attributed to the discriminatory allocation of scarce industrial raw materials, both imported and indigenous and for this the responsibility largely lies with the Central Government. The extent of discrimination, so far West Bengal is concerned, could be traced in the Government of India's annual allotment of raw materials against the assessed requirements of various States. In 1962-63 Maharashtra's assessed requirements for copper was 10,000 tonnes against which it was allotted 2,863 tonnes. The requirement assessed by West Bengal was 19,900 tonnes, a little less than double quoted by Maharashtra, but it was provided with only 1,835 tonnes, i. e. 1,000 tonnes less than the former's allotment. Zinc is another scarce raw material where this discrimination against West Bengal seems even more pronounced. Gujarat whose requirements were 3,600 tonnes was given 1,362 tonnes, whereas West Bengal was allotted only 1,513 tonnes (a little more than Gujarat) against its total assessed requirements of 27,000 tonnes! The following table shows in greater details this aspect of discriminatory allocation by the Centre.

Statewise Allocation of Raw Materials (Non-Ferrous)

	<i>Name of the State</i>	<i>Assessed requirement 1962-63 (ton)</i>	<i>Actual allotment 1963-64 (ton)</i>	<i>Percentage</i>	<i>Rank</i>
COPPER	Maharashtra	10,000	2,863	28.63	4
	U. P.	17,446	2,527	14.48	10
	Punjab	21,030	2,967	14.11	8
	Gujarat	3,000	2,189	72.97	2
	West Bengal	19,900	1,835	9.22	14
ZINC	Maharashtra	8,000	1,883	23.54	6
	U. P.	30,000	1,853	6.18	18
	Punjab	14,080	1,915	13.60	11
	Gujarat	3,600	1,362	37.83	3
	West Bengal	21,000	1,513	7.20	16

TIN	Maharashtra	4,440	77.10	17.50	9
	U. P.	350	61.50	17.00	11
	Punjab	900	11.70	13.00	12
	Gujarat	300	50.70	17.00	11
	West Bengal	960	162.10	17.00	11
LEAD	Maharashtra	1,800	46.50	2.50	11
	U. P.	1,000	58.70	5.80	9
	Punjab	330	28.00	8.50	6
	Gujarat	50	11.50	23.00	3
	West Bengal	2,000	40.50	2.25	12
NICKEL	Maharashtra	640	42.625	6.50	9
	U. P.	800	121.250	15.25	4
	Punjab	420	23.115	10.00	6
	Gujarat	4.7	7.450	140.00	1
	West Bengal	11.0	0.600	0.54	13

The second reason, one for which the State Government is mainly responsible, is no less important than the first. It is often alleged by the central authorities that the State's Directorate of Cottage & Small Scale Industries never takes it seriously to communicate the raw materials requirements of the S.S.I. units in time. Cases are there to show that despite letters followed by a number of reminders, the State Directorate did not care to reply to the inquiries made by the Central Government. Owing to this inaction on the part of the State Government officials, S.S.I. sector in the State had to miss a number of opportunities for securing their requirements of raw materials.

Finally, the small scale units are themselves partly responsible for this shortage. The State Government officials make the allegation that the attitude of the small entrepreneurs in respect of furnishing their own requirements of raw materials is often found to be extremely non-cooperative. A few are shy in quoting their requirements. Some have a strong propensity to overstate their demand with a motive to trade with the scarce materials in the black market. A few others do not plan for the year and as such are unable to furnish the estimate of their requirements.

That the small sector should be facing marketing problem vis-a-vis the general stagnation of the economy is understandable. It started with the decline in railway orders which through its effect on the large sector led to a recessionary impact on small industries.

But there are other reasons too. The instances are not rare where large scale industries and public sector projects in Durgapur area and

elsewhere are not purchasing their required inputs from local small industrialists, but are placing orders in other States. The attitude of the State Government has also come in for a measure of criticism in this regard. It has been alleged that in spite of their availability within West Bengal, a good number of stores items required by the State Government and its undertakings are purchased from outside.

Yet another problem that the S.S.I. sector has been facing for quite a long time comes in the form of increased cost of raw materials, stores, wages and incidentals. These units cannot neutralise this increase in cost by enhancing the prices of their products for the simple reason that they have to face a sellers' competition in a strictly buyers' market. Theoretically speaking, they function within an imperfect buyers' monopoly framework. Finally, another problem that adds to their hardship arises out of delayed payment of bills.

Old and worn out tools and machinery form the bulk of the capital assets possessed by small scale industries in West Bengal. The survey conducted by the Reserve Bank of India on small engineering units in Howrah reveals the extremely poor state of capital assets in that area. Of the 3,100 major machines employed by 200 sample units, about 2,000 were found to be over 15 years old and more than 1,000 over 30 years old. If one takes 15 years to be the normal life of a machine it is clear that there is a lot of junk accumulated in this sector.

It has also been revealed in that survey that the *de facto* owners of those units, mostly mistries, are reluctant to replace worn out machines even if they are given cheap loans for this purpose. They would rather build up a machine with scrap materials than purchase a new machine. This typical resistance to new machines is a characteristic feature in the behaviour pattern of the State's small industrialists.

The picture of working capital seems even more gloomy. The survey conducted by the Department of Statistics, University of Calcutta, reveals an extremely poor condition of Howrah's small engineering industries in this regard. It was found that in nearly 40 per cent of industrial units operating in that area, either there is no stock of raw materials and other consumables or the value of such stocks is Rs. 100 at the most. Nearly 60 per cent of them have no stocks of semi-finished goods. About 16 per cent were found to have no stocks of finished goods, while 42 per cent had stocks valued at Rs. 1,000 or less. The picture of money stock in hand is the most depressing. More than 50 per cent have no stock at all. Only 18 per cent have a bank balance exceeding Rs. 1,000. About 67 per cent run without any bank balance—they have not yet developed the banking habit.

The latest survey on Howrah's small industrial complex revealed

an interesting fact. This is that nearly 30 per cent of the units that came under the survey run without power. This alone can measure the extent of the problem that arises out of inadequate infra-structure facilities.

Rural electrification in West Bengal, in comparison with Tamil Nadu or Punjab, is still in its infant stage. Rural areas in most of the districts are not provided with facilities of electrical power. Those that have, on the other hand, are often found unable to use it for the high electricity tariff.

Land for making sheds poses another serious problem. Only 13 per cent of the units operating in Howrah have their sheds built on purchased land. While about 8 per cent have sheds constructed on rented land, the rest hire sheds for use.

The problems of production of West Bengal's small industries are rooted in their very structure as well as the motivation of their owners. To begin with, most of the production units do not have any kind of production planning. More than 70 per cent of the operating units in Howrah execute jobs on order-to-manufacture basis and for this no advance planning on production is felt necessary. Only 6.6 per cent of them follow a production plan and undertake production in anticipation of order.

Time and motion study are equally non-existent. Most of the entrepreneurs have not even heard of it. Men and machines are therefore utilised in a haphazard way. No efforts to reach the optimum utilisation level have ever been made in the past and the same continues to this day. The study made by the Reserve Bank of India has focussed some new light on the aspect of men and machine utilisation in Howrah industries. It was found in the survey that the lack of orders is the principal cause for both men and machine non-utilisation. Shortage of raw materials is another important reason followed by power failures. About 80 per cent of workers' idle time is due to the above factors and the rest for their behavioural irregularities such as late reporting and early leaving (5.3 per cent), gossiping (3.9 per cent) and taking tiffin and tea (7.4 per cent). The pattern of machine loading was also found unsatisfactory. Wastage of both man and machine-hours in most cases can be avoided if those units resort to a better programming of operations.

Absence of quality control is another impediment to production. Calcutta University survey on Howrah industries found no evidence of regular quality control efforts although perfunctory inspection of raw materials and finished goods is carried out by a very limited number of units located in that area. This often results in the rejection of the products supplied by them to the big producers particularly those who are quality conscious. It is one of the reasons why some large

units place orders on small industries outside West Bengal.

Lack of standardisation is yet another problem faced by West Bengal's small industrial sector. Products manufactured in accordance with the same specifications often lack homogeneity. It not only creates marketing difficulties for the small sector, but affects large sector in producing standardised products.

Another set of problems the S.S.I. units face can be termed as internal management problems. The owner-manager of small firms is sometimes a technician or a businessman or even a financier having no knowledge of business or industry. It is hardly possible for him to perform the various managerial functions that he is supposed to. Thus a technician-owner might face accounting problems or businessman, technical management difficulty and so on.

Then there is labour unrest. This is a part of the general problem faced by West Bengal's industries as a whole. While the big industries for the simple reason of bigness of size and resources can survive the shocks of persistent labour troubles, the small industries cannot. It is for this particular reason that many small units have had to shut down in the recent period.

Trade unions in this State make no distinction between large and small industries. Unfortunately the rigours of labour legislation also is almost equal on both the sectors. Thus both the State Government and trade unions treat the small sector at par with the large industries. An example can be cited in this connection. The recent agreement between the central trade union bodies and certain large scale employers of the State on minimum wages payable to the workers seriously affected the small manufacturers. Many small units employ 50 or more persons and as such they also virtually came under the agreement. But the problem is this: whereas the large units may afford to pay this revised wages to their employees, the small units cannot.

West Bengal's small entrepreneurs are mostly traditional in their attitudes, though many of them have come up only recently. Of the 396 sample units of Howrah's small engineering industries employing less than 20 workers, about 50 per cent were set up between 1956 and 1960, 10 in 1961 and over 8 between 1951 and 1955. Though they are of recent origin, they were found practising traditional methods of production, marketing and management.

Most owners are local people, from the neighbouring areas; as many as 304 are from Howrah itself and 22 from Calcutta and 24 Parganas. About 50 come from other States. About 90 per cent of those entrepreneurs are Hindus, and surprisingly most of them belong to a particular caste 'Mahishyas'. This demonstrates, at least to a certain extent, the pull of family tradition, the force of family example,

and, perhaps of financial or other family aid on the decision to start business. The analysis of the antecedents revealed that 117 (out of 179 Mahishyas) were sons of people in service with very low incomes, and as many as 46 were sons of factory workers; more than 25 are sons of businessmen. Very few of them, only 13, were from families of industrialists showing that majority of the units were not inherited.

From this, it is evident that dominant section of the traditional entrepreneurs is the class of mistry-owners. As stated earlier most of them are away from the modern financial institutions like banks and the various State financial agencies. From these two observations the role of indigenous financiers in the functioning of the small industrial sector could be easily imagined. As far as finance is concerned, the mistry-owners seem to be wholly dependent either on indigenous financiers or the central units referred to earlier. However, this financial dependence does not lead to a stage of losing ownership control over their respective units.

The attitude of the traditional small entrepreneurs in relation to the changing industrial environment shows an interesting admixture of resistance and adaptation. They wish to live with their inherited traditionalism because they know it and, as such, feel secure. This sense of security is the basis of their risk-bearing capacity. As entrepreneurs they would like to bear risks and grow bigger.

The new technology, however, constantly makes them aware of their limitations and takes away the old sense of security. So they would resist it to the extent they are capable of resisting, but at the same time they try to adjust with the realities for fear of losing the ground. They will resist any sophisticated machine to be installed at their establishments or any scientific method of management to be adopted at their offices but, nonetheless, they take keen interest in the working of a complex modern machine or perhaps send their sons to colleges to study engineering subjects or commerce. This dualism in attitude presents a transitional behaviour pattern of the small industrialist in West Bengal.

Revitalising West Bengal's small scale industries is the responsibility of both the State and Central Governments. The investment in small sector is essentially labour-intensive and, as such, its development in West Bengal can solve to a great extent the State's problem of unemployment both in the agricultural as well as industrial sectors.

13. *Impact of Recession*

THE tendencies of decline in the economy of West Bengal were further aggravated by the onset of a phase of sluggishness in the Indian economy, which has, for want of a better term, been characterised as a recession. This recession was an all-India phenomenon, although West Bengal appears to have been hit the hardest by it among all the States of the Indian Union.

Unlike the classical or text-book pattern of a recession, there was no absolute decline, except for a very short period, in industrial activity. But the annual growth rate, which was averaging 7.4 per cent during the nine-year period 1956 to 1964 and even reached a figure of more than 8 per cent per annum in the first three years of the sixties, decreased to 5.6 per cent in 1965, 2.6 per cent in 1966 and 1.4 per cent in the first nine months (January-September) of 1967 (Govt. of India, *Economic Survey*, 1967-68, p. 10). Coupled with a drastic fall in agricultural output, which itself was a major cause of the industrial decline, this downtrend of the industrial growth rate created an extremely gloomy situation for the Indian economy as a whole. Indeed, the successive droughts in 1965 and 1966 were the major reason for this industrial setback. The crop failures on the one hand created a shortage of raw materials for a number of agro-based industries and, on the other, depressed the demand for industrial products in vast areas of the countryside. On top of this, paucity of foreign exchange resources led to a sharp curtailment of the imports of raw materials, components, spare parts, etc., for a number of industries, particularly in the engineering and chemical branches. For instance, the value of imported metals and metal manufactures declined from \$ 405 million in 1960-61, to \$ 388 million in 1965-66 and \$ 267 million in the following year.

The adverse developments in commodity production, both agricultural and industrial, depressed the derived demand for transport services, as a result of which the output of the 'transport-oriented' group

of industries like railway wagons, trucks, tyres, tubes, etc., declined sharply. Production of railway wagons and commercial road vehicles fell from the peak levels of 23,000 and 36,900 to the annual rates of 15,000 units and 25,600 units respectively in the first half of 1967-68.

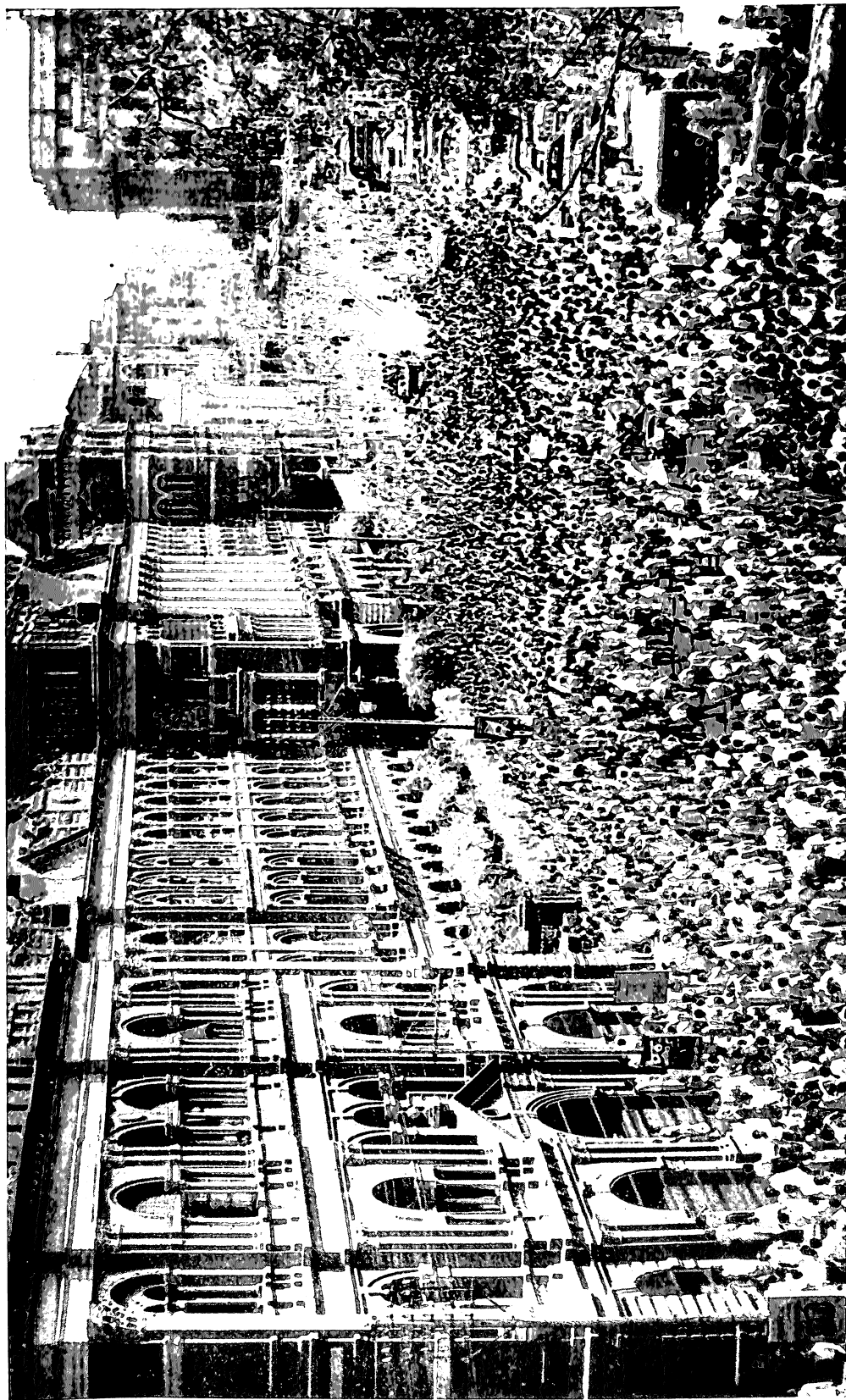
The public sector's investment expenditures, which constituted about 66 per cent of the total national investment, did not sustain the momentum of expansion built up in the preceding period. The gross capital formation (in current prices) financed out of the budgetary resources of the Union Government which had grown by 30 per cent over the previous year in 1963-64 rose by 4 per cent only in 1966-67 (*Ibid.*)

In the private sector, the rise in the rupee cost of imported equipment, uncertainty regarding demand in future years and the restricted availability of project aid contributed to hesitancy among potential investors. The profitability of several industries also declined, reducing internal resources available for further investment. Prior to devaluation of the Indian rupee, profit margins could in many cases be maintained at high levels, permitting adequate total profits to be earned even with considerable under-utilisation of capacity. Subsequent to devaluation and the adjustment of import tariff, these margins were reduced. While the availability of larger imports of industrial raw materials provided the possibility of maintaining the volume of profits, even with lower margins, several industries found this road blocked by the slackened demand.

The distortion in the internal cost-price structure and the high unit cost of output which were not so apparent during the period of the seller's market now came to the surface and aggravated the difficulties during the period of slackened demand. A survey conducted by the Survey Committee on the Engineering Industry in West Bengal revealed that in 1966-67, 29.5 per cent of the units in the engineering industry in this State were complaining of lack of demand.

The impact of the recession was far more marked in the case of West Bengal. The engineering industry which, as we have seen, dominates the industrial structure of this State was most severely hit by the falling demand and the setback suffered by this sector not only had an adverse spread-effect over the other sectors of West Bengal's industries, but also led to an accentuation of the overall decline.

The branch of the engineering industry which was the hardest hit was railway wagon building. This State which accounted for more than 60 per cent of the country's wagon building capacity registered a decline of over 39 per cent in 1966 in the production of wagons in terms of four wheelers as compared to the position in 1965. The corresponding figure for the rest of the country was only 21.4 per cent. In the next year, i.e. 1967, while production in West Bengal fell by a



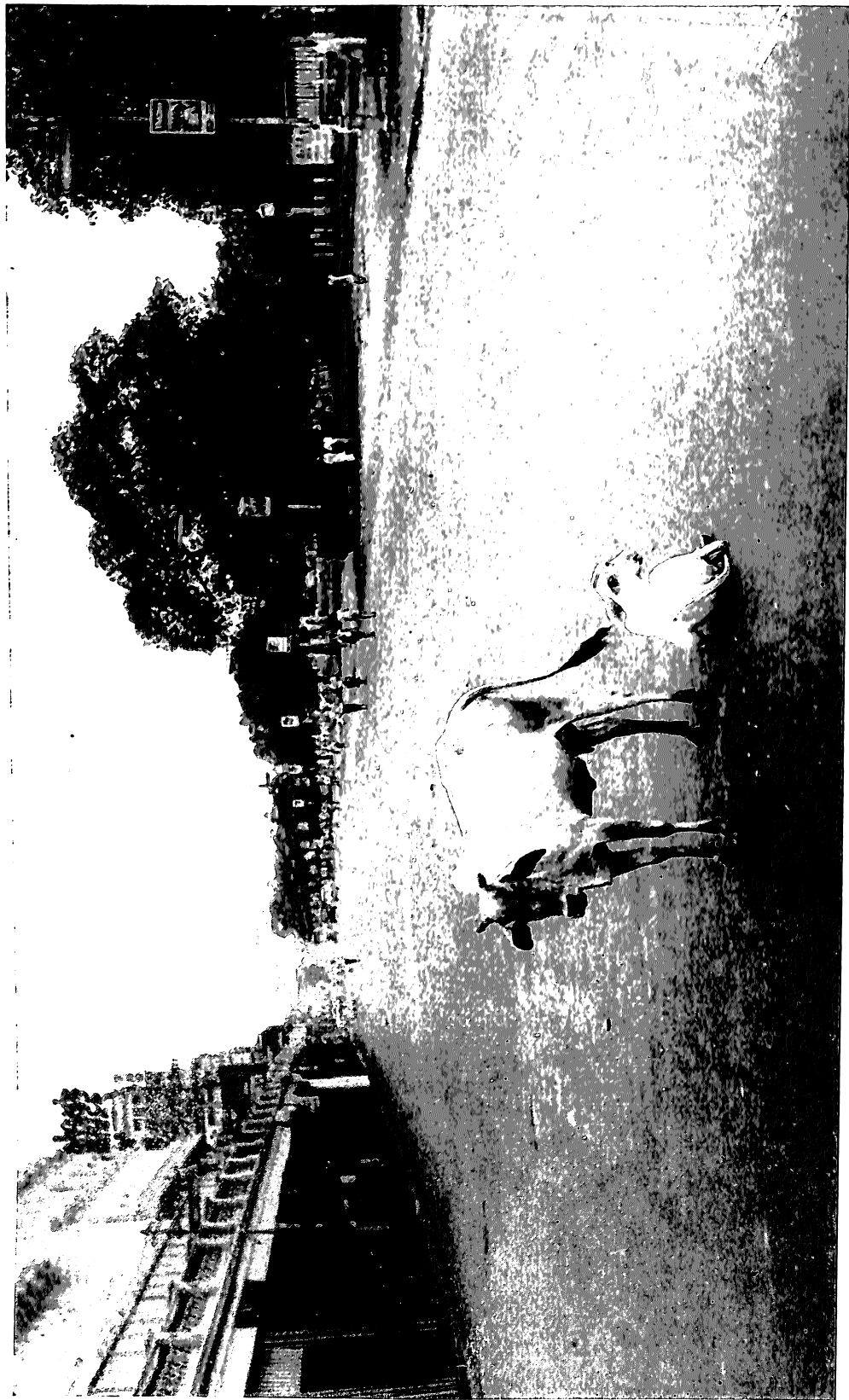
1. Calcutta has been called the city of processions—one such in front of Writers Buildings, the main Government Secretariat is to be seen here.



2. Many refugees have made their homes on the platforms of railway stations—a few such families on Scaldah Station are shown here.



3. Hawkers' stalls spilling over on to the main roads—a typical feature in Calcutta.



4. Cattle roam freely on even the most important streets creating traffic problems.



5. A student demonstration in Calcutta.



6. Over-crowded transport—one of the many problems of the Metropolis.



7. Waterlogging is a normal feature during every monsoon. Picture shows an important Calcutta thoroughfare after a shower.



8. Primitive methods of cultivation continue to be used by most farmers in West Bengal.

further 32 per cent, the fall in the remaining States was less than 22 per cent. As a result of this decline the share of West Bengal in the total production of railway wagons came down from more than 75 per cent in 1963 to about 54 per cent in 1967. The output of wagons in 1967 in West Bengal was only 41 per cent of the peak level reached in 1964, while for the remaining States the level of production in 1967 was 62 per cent of their peak production.

This drastic fall in railway wagon manufacture immediately affected the ancillary feeder units in the small sector, mainly concentrated in the Howrah industrial area. As a result, many of these units had to close shop.

Indeed, not only was the impact of recession harder in the case of West Bengal, but it had set in earlier too. Thus while the production of engineering items like bicycles, conduit pipes, stationary diesel engines, reamers and woodscrews actually increased in 1966 compared to 1965 in the country as a whole, the output of these industries in West Bengal suffered an appreciable decline during the same period. For instance, all-India production of diesel engines, reamers and conduit pipes increased by 21.5 per cent, 18.8 per cent and 8.5 per cent in 1965-66 compared to the preceding year. But the output of these industries fell by 13.6 per cent, 33.2 per cent and 11.2 per cent in West Bengal during the corresponding period. In the case of bicycles and woodscrews the all-India output increased by 8.5 per cent and 3.8 per cent as against the fall of 3.7 per cent and 12.3 per cent respectively in West Bengal.

In a number of other industries which were affected generally throughout India, the fall in output was steeper in West Bengal than in other States. For example, the production of razor blades, storage batteries and electrical fans declined from the peak by 4.7 per cent, 6.3 per cent and 10.8 per cent in 1966 in the country as a whole; but the fall in the case of West Bengal was 12.3 per cent, 7.5 per cent and 12.3 per cent respectively.

The serious setback to industrial production in West Bengal as a result of the recession was vividly reflected in the fall of power generation in 1966 compared to the previous year. While the volume of electricity generation increased by 17.2 per cent in Maharashtra and 8.8 per cent for the country as a whole over the previous year, it decreased by 89 million units or by 2.2 per cent in West Bengal. The significance of this fall stands out more sharply when viewed against the average increase of 369 million units per year right from 1960 to 1965 in this State.

The recession had its adverse impact immediately on the employment position. A declining rate of growth in the employment in the registered factory sector had been noticed right from 1963 onwards. This turned into an absolute decline after 1965. In the registered

factory sector the total employment declined by more than 40,000 in 1966 from the level in 1965. For a fuller appreciation of the significance of this decrease, it has to be noted that the total increase in the registered factory employment in West Bengal during the entire nine-year period from 1951 to 1959 was only 20,000. So exactly double the increase in total employment achieved in the first nine years of Plan period was wiped out in the course of one year in West Bengal.

This fall in the industrial employment had an adverse effect on the entire socio-economic framework of the State and led to a very serious deterioration of its economic climate. The Survey Committee on the Engineering Industry in West Bengal very succinctly puts this in the following paragraphs :

“This fall in industrial employment, particularly in the engineering industry, and the accompanying stresses and strains reflected themselves through the increasing tempo of labour troubles during the year 1967..... The increasing tempo of labour troubles in its turn led to further decline in productivity of industry when the paramount need was for an all-round improvement in productivity and, through it, reduction in the cost and improvement in quality of products to increase the competitive capacity of the industry. The fall in employment level also meant a further decline in effective demand through decline in income, when the problem before the engineering industry of the State was to generate more and more demand for its products.

“The mounting industrial disputes had their spread effect throughout the manufacturing industry of the State, including those units which were not yet affected by the recession. The buyers from other States felt nervous and hesitant in placing their orders with the industrial units operating in West Bengal for fear of non-delivery in time. Instances have been quoted from industrial circles where orders received by the industrial units of the State were diverted to other States because of actual or even apprehended labour unrest. The falling employment and falling income consequent on the impact of recession thus set in motion a chain reaction of further fall in industrial production and the consequent decline in income and employment even where effective demand existed. The vicious circle of falling employment, falling income, falling production leading to further decline in production, income and employment thus overtook the industrial scene of the State.” (*Report of the Survey Committee on the Engineering Industry in West Bengal 1951-68*, op. cit., p. 81.)

Coinciding with this recessionary phase in the industrial cycle came the new phase in the politics of the State. The assumption of office by a united front of left parties headed by the Communist Party of India (Marxist) further aggravated the developing economic crisis. Apart from the fact that a number of leading trade union leaders had

themselves taken over the key portfolios of the State Government, the workers themselves felt emboldened to launch "actions" under the new order. This combination of complementary factors led to serious aggravation of the labour situation which found its most typical expression in what has come to be popularly known as *gherao* movement.

As the *gherao* movement since its emergence during the united front regime in 1967 has become more or less an endemic feature in West Bengal's industrial relations, it will not be out of place to study this phenomenon in a little depth. The *gherao* movement has been described by the Chief Justice of the Calcutta High Court as below :

"*Gherao* is a comparatively new form of demonstration which is being resorted to by labourers in this country. Generally, it assumes the form of keeping the management or the managerial staff of industrial and other establishments in wrongful confinement, thus depriving them of their personal and other liberties. Occasionally it assumes the form of physically surrounding such establishments thus shutting off access of the management thereto, thereby depriving them of their right to property. The last mentioned form may be described as encirclement in depth, so deep that the encircling persons overrun the establishments themselves and shut out the management. Once commenced, *gheraos* tend to degenerate into further criminal activities, for example, wrongful restraint, trespass, mischief, annoyance, intimidation and worse. The object of both the forms of *gheraos* is to coerce the management and make them concede to the demands of the labour." (Quoted by Nitish R. De in *Economic & Political Weekly*, Bombay, Annual Number, 1970.)

According to an account, the total number of *gheraos* between March and October 1967 was 1,131 of which more than 700 took place in the engineering industry alone. The total period of these *gheraos* added up to an aggregate of 11,972 hours.

The U. F. Government went out of office in November 1967 but returned to power in February 1969. During this interregnum no *gheraos* were reported to have taken place. But this phenomenon re-emerged as soon as the second United Front Government came to power. Between March and May 1969 there were 100 cases of *gheraos* in industrial establishments and plantations.

The interaction of deep-going economic and political processes has created a very complex situation in this State. "This peculiar situation", says the report of the Survey Committee on the Engineering Industry quoted earlier, "along with fundamental political changes within our country occurring after a very long time, has inevitably led to an accentuation of industrial unrest which in turn is further aggravating the present crisis in the economy. Unless this peculiarity of the present situation is properly understood it will lead to the advocacy of solving

one aspect of this problem most probably leading to further aggravation of its other aspect." (*Op. cit.*, p. 82.)

Mr. Nitish R. De, who belonged to the faculty of the Indian Institute of Management, Calcutta, and had made a thorough study of phenomenon of *gherao*, draws attention to certain significant aspects of this movement. "Despite", says he, "the wide publicity that the *gherao* movement has received in the popular press in India and abroad and despite the sense of terror it has created in the hearts of the industrial elite, an estimate shows that only about 10 per cent of the industrial establishments were affected by *gheraos* in 1967. It also shows that neither the white collar clerical employees, who are highly politicised and actively unionised, nor the employees of such establishments as are nurtured in a culture of collective bargaining participated in the movement, despite their left political leanings..." (*Op. cit.*)

Whatever the truth of these assertions, the fact remains that the climate of job-insecurity resulting from closures of and lay-offs in the industrial establishments in the wake of the recession led to a sharp accentuation in industrial unrest in West Bengal which took many untoward forms. Comparative figures of the traditional forms of labour disputes in the two most industrial States of India, viz., Maharashtra and West Bengal are of interest in this connection.

It will be seen from the table on the next page that as regards the numbers of disputes and workers involved, Maharashtra was much ahead of West Bengal in all the three years till 1968. In 1968, however, though Maharashtra still accounted for the larger number of disputes, the number of workers involved was considerably higher in West Bengal. In terms of the number of man-days lost, West Bengal has always been somewhat in the lead. But, even in this case, the high-point of the recession, i. e. the year 1967, served as a watershed when West Bengal's lead on Maharashtra jumped to 37,23,224 man-days lost compared to 1,18,567 in the previous year.

A picture of the developing industrial unrest can also be had from the following year to year proceedings of the Indian Engineering Association.

Speaking at the 55th Annual General Meeting of the Association held on March 28, 1966 Chairman Mr. J. W. L. Russell referred to the growing cost and price-inflation and said :

"Under these conditions it is not surprising that industrial relations have been subject to increasing strain. Nevertheless, industrial peace was well maintained throughout the period of the Indo-Pakistan crisis from September to December 1965. This reflects credit both on workers and employers for the way in which they responded under the prevailing national emergency." (*Proceedings*, p. 12.)

Industrial Disputes

		1965		1966		1967		1968	
		No. of dispu- tes	No. of workers invol- ved	No. of dispu- tes	No. of workers invol- ved	No. of dispu- tes	No. of workers invol- ved	No. of dispu- tes	No. of workers invol- ved
		man- days lost		man- days lost		man- days lost		man- days lost	
Maharashtra	586	379,956	1,203,388	810	541,051	3,693,294	721	315,735	2,201,519
West Bengal	238	152,315	1,745,944	284	187,018	3,812,861	457	243,686	5,924,743
								676	284,839
								480	364,550
									1,674,180
									6,566,553

Sources: Govt. of India, *Indian Labour Year-Book* and Indian Engineering Association, *Handbook of Statistics, 1968-69*.

On March 31, the next year, the then Chairman, S. K. Datta, however, struck a new anxious note. "We in West Bengal", he said, "have had cause for concern over the deteriorating law and order situation which has taken place since the General Elections. While in a few cases, proposals to lay-off and retrench workers have given rise to unrest, in many of the cases it has not been possible to pinpoint any particular grievance. Whether or not there has been any ground giving rise to a dispute, the fact nevertheless remains that there have been a number of cases where managements have been confined in their factories—for over 80 hours in one instance...." (*Proceedings of the 56th Session*, p. 17.)

Addressing the 57th Annual General Meeting, on March 29, 1968, Chairman Mr. A. H. Sethna said :

"... Recession has brought with it not only unrest but also a large surplus labour force; idle workers. This has resulted in proposals for retrenchment and lay-off of workmen. There is strong opposition to such proposals and, while I would agree that these measures are not desirable, I would also point out that some adjustment in the labour force is essential..."

"There is no doubt that the hardship of the workmen has increased and that the cost of living has risen progressively. One result is the substantial increase in dearness allowance paid to workmen....The engineering industry is faced with a recession and substantial idle capacity; its earnings have therefore fallen. Many units already reached the limit of their resources and have closed...." (*Proceedings*, p. 16.)

Mr. Sethna concluded his observations on this question on a hopeful note. "The past year", he said, "has been very bad from the point of view of industrial relations. But looking into the future I can see no reason why relations with workmen should not improve and reach a level satisfactory to all. It will need a conscious, determined effort from Government, industry and workmen with the emphasis on relating increased payments and better facilities to productivity and on development of healthy trade unionism. Neither objective is, by any means, beyond us." (*Ibid.*, p. 17.)

There is nothing to show that Mr. Sethna's hopes about a rise in productivity is being fulfilled. But, what with the steady though slow upswing in the economy and change on the political plane, the statistical indices of industrial relations certainly reveal considerable improvement in West Bengal in the recent period.

Industrial Relations in West Bengal

	1969	1970
1. No. of factories closed	184	135
2. No. of workers involved in (1)	32,213	13,645
3. Factories reopened	92	18
4. Workers involved in (3)	16,481	4,438
5. No. of factories resorting to lay-off	211	67
6. Workers involved in (5)	43,057	14,983
7. No. of workers retrenched	1,439	516
8. No. of strikes	786	250
9. No. of workers involved in strikes	607,235	30,325
10. No. of lock-outs	135	37
11. No. of workers involved in lock-outs	75,750	27,917
12. No. of man-days lost	9,800,821	1,907,169 (upto April 30, 1970)
13. No. of factories involved in <i>gheraos</i>	517	38 (upto May 30, 1970)
14. No. of workers involved in (13)	88,525	4,992 (-do-)

Source : Govt. of West Bengal, *Paschim Banga*, July 17, 1970.

14. *Problems of the Young— Education and Employment*

IN order to understand the young man or woman in West Bengal today and his or her response to the social environment, one has to examine the educational system on the one hand and the problem of employment on the other. It is these that represent the social milieu in which the youth of the State operate. It is the situation that prevails in these fields that has warped the minds of the young and conditioned their mental make up and behavioural pattern.

To take up the question of education first. The characteristic features of the situation that prevails in this sphere are a lack of educational facilities, complete chaos and mismanagement in the meagre facilities that exist and a high turnout in higher stages despite the inadequacies of educational opportunities in terms of needs.

The table on the next page shows the relative differences that exist among the States in respect of development of education. Kerala holding the seventh place in the rank order by *per capita* income stands first in order of the proportion of the State income (3.64 per cent) and State revenue (34.88 per cent) spent on education. West Bengal holding the second place in the rank order by *per capita* income slips to twelfth in respect of State income, to eighth in respect of State revenue spent on education and to third, with respect to *per capita* expenditure on education. Taking the proportion of State revenue spent on education, West Bengal lags behind Rajasthan, Madhya Pradesh, Gujarat and Tamil Nadu, holding respectively the fourteenth, twelfth, fourth and fifth positions in rank order by *per capita* income.

The table on page 122 gives the distribution of students enrolled in primary, middle and high schools and in higher education by showing the proportion that students in each category constitute of State population and column (5) relates technical school to high school enrolment.

Allocation of Resources to Education, 1960-61

<i>Rank order by per capita income</i>	<i>State</i>	<i>Per capita income (Rs.)</i>	<i>Expenditure (public and private) on education to State income (per cent)</i>	<i>State revenue spent on education (per cent)</i>	<i>Per capita expenditure on education (Rs.)</i>
1	2	3	4	5	6
1.	Maharashtra	469	2.64	23.43	12.4
2.	West Bengal	465	2.10	19.12	9.8
3.	Punjab	451	2.05	18.89	9.3
4.	Gujarat	393	2.34	20.94	9.2
5.	Tamil Nadu	334	2.82	19.78	9.4
6.	Assam	333	2.26	15.89	7.6
7.	Kerala	314	3.64	34.88	11.5
8.	Mysore	305	2.46	13.14	7.5
9.	Uttar Pradesh	297	1.81	12.49	5.4
10.	Jammu & Kashmir	289	1.99	13.08	5.7
11.	Andhra Pradesh	287	2.49	17.98	7.1
12.	Madhya Pradesh	285	2.19	22.03	6.2
13.	Orissa	276	1.54	14.20	4.3
14.	Rajasthan	267	2.35	23.16	6.3
15.	Bihar	221	2.20	19.49	4.9
	INDIA	335	2.35	18.96	7.8

Source : Education Commission, *Inequalities in Educational Developments*, New Delhi, 1966.

West Bengal ranks first in technical/vocational and higher education, but slips to fifth, seventh and fifth positions respectively in primary, middle and high school enrolments.

Level and Type of Enrolment by State

(Enrolment as p.c. of population*)

State	Primary educa- tion	Middle school	High/Higher Secondary classes (IX-X/XI- XII)	Secondary Technical/ Vocational	High- er educa- tion
I	II	III	IV	V	VI
Andhra Pradesh	8.3	1.1	0.5	5.2	1.6
Assam	9.5	1.8	1.1	3.8	2.3
Bihar	6.9	1.2	0.7	4.9	1.9
Gujarat	10.0	1.9	0.8	9.6	2.4
Jammu & Kashmir	6.0	1.7	0.5	—	2.3
Kerala	14.1	4.1	4.1	5.8	2.6
Madhya Pradesh	6.2	1.0	0.4	4.0	1.5
Tamil Nadu	9.9	2.0	0.8	16.1	2.1
Maharashtra	10.0	1.9	0.9	16.4	2.8
Mysore	7.3	1.3	0.7	17.8	2.3
Orissa	8.0	0.6	0.2	9.7	0.8
Punjab	7.3	2.2	0.8	NA	2.8
Rajasthan	5.5	1.0	0.4	3.1	1.6
Uttar Pradesh	5.5	1.1	0.7	3.4	1.5
West Bengal	8.3	1.5	2.6	19.3	4.0

*Figures in Col. V represent the ratio of secondary technical/vocational enrolment to high school enrolment.

Source: The table is based on data presented in National Council of Educational Research and Training, *Educational Statistics Districtwise, 1960-61*, New Delhi, 1966.

It is hardly surprising to find industrialised States such as West Bengal and Maharashtra with the big cities of Calcutta and Bombay ranking high in technical/vocational enrolment. What is surprising is that West Bengal lags behind some of the comparatively backward States, backward from the point of view of *per capita* income. Kerala, Gujarat, Tamil Nadu and Assam which rank respectively seventh, fourth, fifth and sixth in *per capita* income hold better positions in respect of primary school enrolments. In respect of middle school

enrolments the rank of West Bengal slips to the seventh while in respect to high school enrolment, it falls behind Assam, Maharashtra, Gujarat and Bihar.

A relatively higher rate of enrolment in secondary technical or vocational institutions as well as in institutions providing higher education on the one hand and inadequate laboratory and library facilities together with overcrowded class rooms on the other lead to frustration and disgust amongst students. Set against the background of diminishing prospects of employment it leads to an explosive climate inside and outside the campuses of West Bengal.

Number of Schools in West Bengal

<i>Year</i>	<i>Primary (a)</i>	<i>Middle (b)</i>	<i>High (c)</i>	<i>Higher Secondary or Multipurpose</i>
1960-61	28,050	2,120	1,427	769
1961-62	30,653	2,200	1,393	945
1962-63	32,245	2,196	1,405	1,147
1963-64	32,587	2,188	1,511	1,296
1964-65	32,718	2,135	1,677	1,496
1965-66	32,287	2,116	1,807	1,667
1966-67	33,153	2,095	1,903	1,718
1967-68	34,507	2,194	2,004	1,807

(a) Including Junior Basic, Basic Primary and Nursery institutions.

(b) Includes 2-class Junior High and 4-class Junior High.

(c) Including Senior Basic.

Source : Govt. of West Bengal, *Economic Review*, 1969-70.

After independence, there has been a phenomenal growth in the number of schools (primary, middle and secondary) in West Bengal. Schools (primary, middle and secondary) have mushroomed not only in the districts adjoining Calcutta where refugees from East Pakistan have settled, but also in other districts such as Midnapore.

Notwithstanding Government aid from the Education and the Refugee Rehabilitation Departments in the fifties, local initiative and drive was mainly responsible for opening new schools. The Government runs directly only some two dozen schools. Expenditure for

capital construction of private schools was mainly borne by the local people and tuition fees collected from the students formed the chief source of revenue of the schools till Government aid which is hardly uniform (salary deficit scheme, lump grant, full deficit grant-in-aid scheme, etc.) trickled in. In the case of salary deficit scheme, a fixed amount, nearly one-third of the salary of a teacher, and in the case of lump-grant-aid, a fixed amount irrespective of the expenditure of the schools is disbursed by the Government while guardians are left to bear the load of the educational expenses. Only in the case of the third category (deficit grant-in-aid scheme) is nearly fifty per cent of the expenses met by the Government.

Nearly one third of the Junior High, High and Higher Secondary Schools in this State are unaided, receiving no monetary aid from the Government. The unaided schools charging tuition fees at very high rates are a unique phenomenon in West Bengal. More than three dozen educational institutions are run by business houses in Calcutta.

Since 1962, expenditure on education has been erratic. The disbursement of Government aid has become regularly irregular. Salary payments to teachers remain outstanding for months. The Government cannot even meet the committed expenditure, not to speak of meeting developmental needs. A frustrated teacher who gets little recognition from society, not to speak of a living wage, is hardly the right person to build the future generation of the nation.

The younger generation is conditioned by the influence the society, home and school exercise on them. During the post-independence period a new generation has grown up. World War II, famine, partition of the country, exodus of the millions of people from East Pakistan to India, etc., have shaken up the very foundations of society. Old values have become outmoded. The new generation has witnessed that lofty promises are honoured more in the breach than implementation. Wealth even earned by dubious means is not looked down upon. Only money commands respect and prestige in the society.

The atmosphere at home beggars description. Space is extremely limited. There is no provision for a separate study for the vast majority of the learners. There is no privacy for adolescents. An attitude of defiance, scepticism and cynicism pervades the minds of the young.

While at school, lack of proper library and laboratory facilities, over-crowded class rooms, the burden of an unrealistic syllabus, want of co-ordination in curriculum among the different stages, absence of tutorial work, individual attention and of guidance cripple the existing teaching system.

The attitude of dominance of the teacher over the taught fails to rouse the initiative of the taught. The out-moded form of teaching

seldom awakens the curiosity of the pupils or meets their diverse interests and inclinations. The ill-paid teacher, carrying no respect in a society where money is the main criterion, fails to win the respect of the taught. Provision for co-curricular activities in the form of sports and games, seminars, symposia, free compositions etc., is either absent or a mere formality.

The shortcomings of the present examination system are too well-known to need elaboration. Gramming is encouraged. An attitude of trying to pass the examination by hook or by crook develops. Success in the examination means eligibility for applying for a job. Nearly fifty per cent fail to reach the goal.

Examinations have become a terror for students. The recent slogan of boycotting examinations succeeded in mobilising even the best of the students in certain cases.

In the post-independence period, student agitations were confined more or less to colleges. A new wave among the school students is now evident. The slogan to destroy everything the old society values seems to have an attraction for them. Organised force derived from ideologies based on extremism is, even though practised by a few, sometimes enough to paralyse the institutions.

West Bengal ranks first in technical/vocational and higher education enrolments. There is a craze for higher education. The number of candidates appearing at the school leaving examinations has increased more than six-fold since India won independence. In 1967, the last year when the Calcutta University's jurisdiction included entire Bengal except Dacca city, 75,000 candidates sat for the Matriculation examination. The figure was 30,000 in 1948 when the geographical area under the Calcutta University was limited to West Bengal and Tripura only. The comparative figure for 1970 was about two lakhs (School Final and Higher Secondary candidates).

The prospect for white collar jobs being bleak, the rush for technical/vocational and higher education was heightened. Of the six State universities and one Central university in West Bengal, three State Universities and the Central university (Visva Bharati) have no colleges outside the campus affiliated to them. Burdwan and North Bengal Universities have only a small number of affiliated colleges. The brunt has fallen upon Calcutta University.

The Calcutta University continues to have a quantitative increase though its geographical area has decreased. In 1917-18, the jurisdiction of the Calcutta University extended over Burma and one-third of India with 52 colleges affiliated to it and 28,000 students. At present, 200 colleges are affiliated to it with a mammoth student population of about two lakhs. It is obvious that expansion has outstripped educational facilities available to students and teachers alike.

According to the recommendation of the Education Commission, a university centre should have about 30 colleges under it. All the university centres should work like a consortium, keeping a balance between the teaching wing and the affiliated colleges. This recommendation is being totally ignored. The entire frame-work of education in the Calcutta University is on the verge of a collapse.

The existing enrolment system in the affiliated colleges is very uneven. The total enrolment is less than 500 in 30 per cent of the colleges and in 12 per cent the figure is as high as 2,000 per college. About 36 per cent of the colleges are undoubtedly over-crowded.

A districtwise study by the University shows that proper attention had not been paid to the location of colleges. Of the affiliated colleges, there are 77 in Calcutta, 5 in the district of Hooghly, 13 in Howrah, 22 in Midnapore, 12 in Murshidabad, 6 in Nadia, 7 in Tripura and 26 in 24-Parganas.

A report of a University Inquiry Commission in 1962-63 stated : "It is not a healthy affair that most of the colleges work for less than 200 days (a year), some even for less than 100 days. In about half the private colleges more than half of the total income was in the form of fee receipts from students." The present situation is no different.

Less than 5 per cent of the Higher Secondary students come out successful in the first division. Even this tiny fraction of the students community cannot secure admission into engineering and medical colleges, or take up honours subjects according to their choice. Is it, then, any wonder that students seek to give vent to their anger and frustration in violent forms ?

The shrinkage of facilities in the university colleges themselves vis-a-vis the demand for admission into post-graduate courses is alarming. According to a survey by the Calcutta University, only about 1,000 out of about 5,000 graduates could be admitted in the post-graduate class in Commerce and in Arts, only about 2,500 out of 12,000 students seeking admission.

Even those who pass with honours in the degree examination cannot all be admitted into post-graduate courses. Students securing even 55 per cent of marks often fail to be admitted.

In Arts, the authorities are unable to admit qualified students in subjects like Economics, Bengali, English, Modern History and Philosophy.

The situation is most alarming in Science courses. The problem of admission is particularly acute in subjects like Chemistry, Physics, Botany, Physiology and Zoology.

In Botany, about 12 students who passed without taking up honours course could be admitted in 1958-59 while in 1967-68 about 39 students who passed with honours could not be admitted. Needless to mention the fate of those who did not take up honours.

Admission Problem in the Calcutta University

1958-59				1967-68		
<i>Subject</i>	<i>Students appeared at the honours examinations</i>	<i>Of them the number passed</i>	<i>Seats in Post-Graduate course</i>	<i>Students appeared at the honours examinations</i>	<i>Of them the number passed</i>	<i>Seats in Post-Graduate course</i>
Botany	43	10	22	115	69	30
Chemistry	171	75	35	612	336	69
Physics	231	176	40	480	329	43
Economics	363	215	109	487	168	139
Bengali	190	155	212	870	252	287
English	133	80	111	493	196	197

In Chemistry, about 50 per cent of the students who passed with honours could be admitted in 1958-59 while in 1967-68, only a fifth of them. In Physics, about 86 per cent of the students who passed with honours failed to secure admission in the post-graduate course in 1967-68.

The situation in many other subjects is similar, if not worse.

Narrating the alarming situation in the academic world, a columnist of a leading daily of Calcutta recently commented: "Imagine the feeling of those hundreds in pass and honours courses in Arts, Commerce and Science, who are not able to go to the post-graduate stage; neither jobs nor studies. What wonder that many of them take to the cult of the bomb?"

A striking feature of the student unrest in West Bengal today is the leading role played by the boys from the Presidency College, Calcutta, the traditional habitat of the cream of the student community. This seeming incongruity is largely explained by the extreme accentuation of the unemployment problem.

At the end of the Third Plan period, there were altogether 1.5 million unemployed in West Bengal, according to the State Government (See table in Appendix). The Survey Committee on the Engineering Industry, however, put the figure at 1.9 million. Since then recession has resulted in a shrinkage of the employment opportunities, while the population and its job-seeking component have been enlarged. A recent survey by the Bengal National Chamber of Commerce and Industry arrived at the figure of 3 million unemployed. The number of job-seekers on the live registers of the employment exchanges in the State, as on June 30, 1970, was 532,000. Without venturing into a quantitative

estimate in the absence of any reliable data, let us quote a recent newspaper report which highlights the desperation implicit in the situation. "Altogether", the report said, "1,500 unemployed engineers of West Bengal have applied for admission to the small scale industries training centre for a four-month training during which trainees are paid Rs. 250 a month. The Centre can, however, take only 50 candidates...."

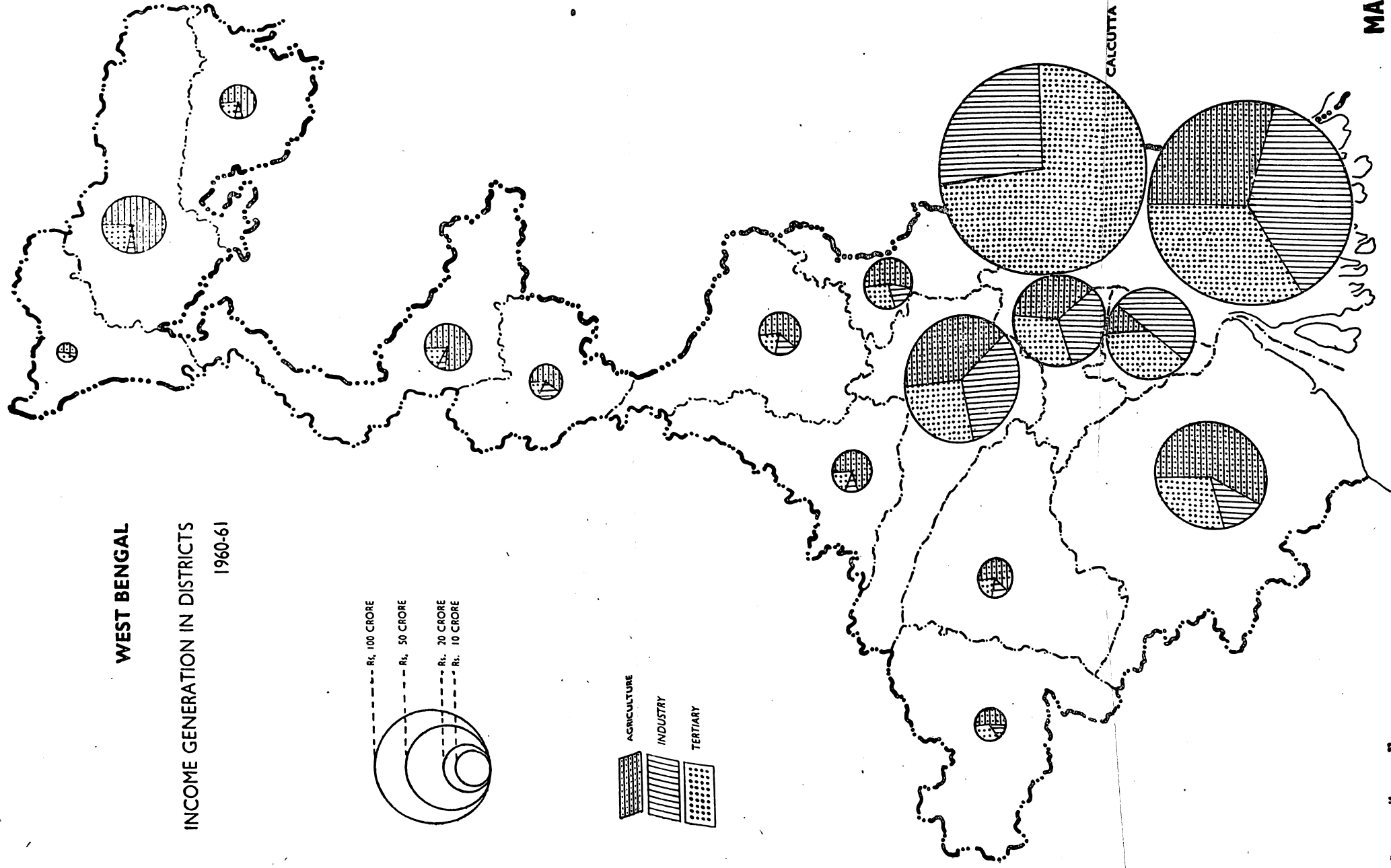
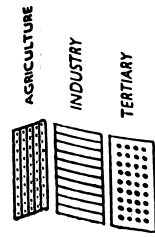
It is pertinent to add that out of the over five lakh unemployed registered with the employment exchanges, over two lakhs were educated, with school leaving certificates and above.

A spokesman of the Bengal National Chamber of Commerce and Industry in this State recently emphasised in a public statement that "the acute unemployment problem in West Bengal was largely responsible for the existing law and order situation in the State....if the severity of the unemployment problem was not eased quickly it would aggravate the law and order problem...." (*The Statesman*, Calcutta, July 25, 1970.)

WEST BENGAL

INCOME GENERATION IN DISTRICTS

1960-61



15. *The Tentacles of the Underworld*

THE underworld is a part of most modern cities. What distinguishes the underworld of Calcutta from that of any other city is that the denizens of this region have grown so strong and powerful and spread their tentacles into so many spheres of the life of this city that they have come to represent a major force within it. As one of the important elements in the socio-political structure of the State, they exercise a determining influence on the course of events.

Various terms have been used to describe these elements and different people attach different connotations to each term. In the absence of any agreed terminology we shall refer to the whole genus as anti-socials. Within this broad category are different species of anti-socials such as the goondas, the wagon-breakers, the *mastans*, the delinquents and so on. Together they are becoming a factor to reckon with and are exercising a growing influence on social organisations, sports clubs, schools, colleges and other educational institutions, trade unions, student and youth organisations and finally on political parties.

The activities of the anti-socials, the boldness with which they operate, the infighting between different anti-social groups have reached such serious proportions that law and order in the ordinarily understood sense of the term has become a casualty. This is having an adverse effect on industrial activity, on trade and commerce and becoming an important ingredient of the present explosive situation in the State.

The most serious and menacing aspect of the whole affair is the link-up of the anti-socials with political forces and groups in the State generally and with certain left extremist groups in particular. The ideology of the left extremists being the deliberate creation of chaos, the disruption of normal life and the annihilation of "class-enemies" under which category they include anyone from a well-to-do

peasant in the rural areas to a police constable, from the Principal of a college to a businessman it becomes difficult to separate the anti-social from the fanatical left extremist. As the Police Commissioner lamented recently, it is possible for the police to deal with the anti-social element but almost impossible for it to tackle an ideology that seems to have infected a large section of the youth of the State.

The use of anti-social elements for political purposes by certain parties in the State is a phenomenon that is at least as old as the communal riots that shook the province of Bengal in India just prior to and at the moment of independence in 1947. In a paper on the "World of Goondas in Calcutta" presented at a seminar by a Police Officer the origin of the phenomenon of goondas in Calcutta is described in the following words:

"We shall here briefly enumerate the causes that made goondaism prevail in Calcutta and why the powers that be fail to cope with the problem. During the Second World War, Calcutta became the Headquarters of South East Asia Command and was subject to the strain of war economy which tore asunder the fabric of society. Money-making was the absorbing passion of some who adopted questionable methods to get rich quick. It is not perhaps too much to say that the ways of the new-rich were the ways of goondas. They unleashed the forces of evil. The alliance of the rich with desperadoes made the characters look respectable in eyes of the people for affluence is sometimes influence. The rich can defy law and to perpetuate their power, they harbour and patronise desperate persons. Other events that followed, heightened the stature of the goondas. During the communal troubles there was a further shift in the attitude of society towards goondas. At that time the services of the goondas were much in demand. The desperate courage of the goondas saved the life and property of many and made some localities safe and secure. They became local heroes and had a large following. They had an army of delinquents at their command. They ceased to be universally condemned. Again the power-politics of the day bring the socially boycotted goondas within the pale of civilized community. During the elections they do yeoman's service. Sometimes their brawn is an asset to the brain of a party intent on capturing power. This places the administrator in a tight corner. He knows full well the soil on which goondaism thrives but cannot get to the bottom to root it out. Legal action can be taken against anti-social elements but not against socially-accepted persons. In an unstable society a goonda may be held in esteem for some reason or other and may be looked upon as a useful member. This undeserved stature gives him the extra-legal position. Political turmoil and goondaism often go together. When the body-politic is out of joint, the forces of darkness get the upper hand.

It is then the goonda in the garb of a patriot hoodwinks society and gains the esteem he does not deserve."

In the beginning the goonda was a pawn in the hands of the politicians. Today the position is practically the reverse. It the anti-socials who are using political parties as instruments for their personal advancement. It is no longer the dog that wags the tail but the tail that is beginning to wag the dog.

In the welter of confusion prevailing almost all political parties in the State are accusing the others of using goondas and criminals to further their ends. There is some truth in the allegations because hardly any party's hands are clean.

A measure of the problem can be had from two recent studies, one on the goondas of Calcutta, and one on the *Mastans*. These studies are so revealing and so relevant to the subject under discussion that rather extensive extracts will not be out of place.

Profile of a goonda

The ordinary dictionary meaning of the term 'goonda' is a ruffian. But in common parlance, he is an outlaw, known and understood more for his bravado than for other felonious enterprises. The term certainly has a bad odour about it and conveys social condemnation and lack of social sanction behind his use of physical force. The legal definition of such a person bears out the popular conception of a goonda. Section 1(4) of the Goondas Act, 1923, says, "Goonda includes a hooligan or other rough". Section 3(1) of the Act, further explains the term, "Such person or gang or body is committing or has committed or is about to commit or is assisting or abetting the commission of—

- (i) a non-bailable offence against person or property, or
- (ii) the offence of criminal intimidation, or
- (iii) an offence involving a breach of the peace, so as to be a danger to, or cause, or to be likely to cause, the inhabitants or to any section of the inhabitants....."

The definition and elaboration do not explicitly explain who really is a goonda. The Calcutta High Court took up the definition of the term 'goonda' in the unreported case of Said Sahib Jan Mian and three others vs. the King. In this case it was held, "Goonda is a habitual breaker of law". In a number of later decisions this definition was further clarified. Lastly, it has been maintained that 'a goonda is a habitual breaker of law' and 'there must be some element of violence in his activities'. Such a type of persons is a menace to the community and to the public order. Constant watch and control only can keep them in check. But Goondas Act became inoperative due to constitutional grounds. So an attempt was made to deal with goondas under the Preventive Detention Act, 1950. Cases of 150 persons who were

detained between 1954 and 1964 under Preventive Detention Act for indulging in goonda activities in Calcutta have been studied and the result is given below :

<i>Age group</i>			<i>Physical standard</i>		
18 — 21 years	..	28	Strong build	..	33
21 — 25 „	..	68	Medium build	..	83
25 — 30 „	..	36	Thin build	..	24
30 — 40 „	..	15	Deformed	..	10
Above 40 „	..	3			

<i>Weapons used</i>			<i>Income group</i>		
Knife	..	10	Re. 1 — Rs. 100	..	79
Bomb	..	22	Rs. 101 — Rs. 250	..	55
Bomb & knife	..	98	Rs. 251 — Rs. 400	..	11
Soda water bottle	..	15	Over Rs. 400	..	5
Lathi	..	2			
Revolver	..	3			

<i>Residential accommodation</i>			<i>Residence in Calcutta</i>		
Building	..	56	South	..	21
Bustee	..	72	Central	..	70
Homeless	..	22	North	..	59

<i>Territorial distribution</i>			<i>Intoxicants</i>		
Calcutta born	Bengali	.. 48	Wine	..	102
	Non-Beng.	.. 30	Ganja	..	16
Permanent home outside Calcutta	Bengali	.. 13	All type	..	30
	Non-Beng.	.. 47	Not Addicted	..	2
Refugee	..	12			

<i>Women</i>			<i>Education</i>		
Kept	..	13	No or little	..	127
Brothel-goer	..	96	School Final	..	18
Married	..	38	Above	..	5
Not attached	..	3			

<i>Employment</i>			<i>Politics</i>		
No work	..	123	No connection	..	127
Casual	..	22	Connected {	Left	.. 10
Regular	..	5		Right	.. 13

Age-group—This survey does not cover the juvenile delinquents as they have not yet attained the full maturity of criminality. Delinquency has a formative stage. Juvenile delinquents, though technically left out of this survey, are but goondas in the making and give us a glimpse into the green-room of their elders. The age-group between 21 and 25 is on the peak of criminality. Their criminal biography indicates that they started their criminal career generally between the age of 16 and 18 years. During this period, the criminal activities are coloured by a ground display of power. In the period of gestation, the show of force is more than the force itself. Target of force is the person. Personal violence causes spilling of blood and blood often creates a ghastly spectacle. At this stage the delinquent is more concerned with the display of his powers than with acquisition of property. Display of force adds to his importance in the community and people out of fear satisfy his demand. He retains his unholy hold on society as long as he is in fine fettle. For this reason, goondas well stricken in years and a prey to senile decay are rare. But it does not mean that persons who are advanced in age do not at all indulge in goonda activities. The survey reveals that three persons who are on the wrong side of forty were detained for their goonda activities. Physical fitness and not age is the determinant of goondaism.

Physical standard—Physical fitness is generally synonymous with strength. But a goonda is not always a man of strong build. On the contrary, persons of medium build, are most efficient and 83 persons of that category are found in the list. Even persons with deformed and disabled limbs are not found wanting in the commission of illegal acts. Ten persons of that description are found indulging in goonda activities. Blindness of one eye, deafness of one ear or both, absence of wrist from one hand and the like are common enough in these criminals; but there is, for very good reasons, no deformity in respect of any leg. They must have a pair of healthy legs to carry them nimbly.

Deformity militates against physical fitness but deformed and disabled persons sometimes develop a strong flair for competition with a normal person. Backed both by physiological and psychological reasons, they sometimes are a little more desperate than their able bodied counterparts. Desperate attempts are sometimes the overt acts of the defectives.

Type of weapon—Health and strength wield a great influence on the mind and character of a goonda. The choice of weapon depends on the state of health. A comparatively weak man prefers explosives and soda water bottles. He can just throw them and make good his escape without facing the victim. But a confirmed goonda does not like to take any chance. 98 persons, out of the total number of 150 persons, used both knife and bomb. They use the knife when the

victim is comparatively a feeble man and is within the reach of their hands. But the confirmed goondas take recourse to bombs when the victim is strong and is beyond the reach of their hands. Use of soda water bottles requires some practice and in the hand of an expert, they become a formidable missile. A well-trained goonda, possessing only one hand, is capable of throwing 10 soda water bottles in a minute and thereby can keep a huge crowd at bay.

A dagger or a knife in the hands of a goonda is generally used for offensive purposes. But bombs are used both for offence and defence. Possession of a revolver or a pistol heightens the stature of the goonda in the eyes of the public and his compatriots. Only with a show of it he can secure a high position in the hierarchy of goondas.

Income-group—Deprivation and frustration are conducive to the growth and development of the goonda spirit in a man. Most of the goondas are born of poor parents and 79 persons of them belong to the income group of persons earning about Rs. 100/- per month. The living condition is also very poor. 72 persons are residents of the bustee area. Two persons have no permanent residence in Calcutta. They are homeless vagrants. An unattached person has no respect for the soil and generally he becomes a desperado. When the income exceeds Rs. 400/- per month, the number of persons infected with the goonda spirit decreases and it comes to 5 persons only.

Parental control is a great factor in life. From statistics it is not possible to state anything about parental control, although attendant circumstances throw a flood of light on it. Goondas, who have their fathers alive and who have their fathers dead, are almost equal in number, i.e. 74 and 76 persons respectively. A goonda generally comes from the low income group. The members of this group are always engaged in earning their living by the sweat of their brow. Their exclusive preoccupation with their living leaves them little time to look after their wards and hence a father alive or dead makes no difference in the life of young ones prone to delinquency. These unhappy children grow up without the fostering care of their fathers. They are without roots in the family. Deprived of joy at home, they seek it outside according to their lights. Consequently they develop into runaways and find allies among the street urchins.

Living condition—Congestion has much to do with the formation of a criminal mind. In a crowd a single man is a non-entity and can merge his identity in the vast ocean of the multitude. It is difficult to sift out a culprit from among a mob. Central Calcutta is by far the most densely populated and as such it is the worst affected area. Out of the total number of 150 detained persons, 70 persons are from this area. In this locality the servants of the well-to-do when out of employ, sometimes swell the number of goondas. Bereft of patronage, the

retainers of the rich scrape together a living by goondaism.

Overpopulation has made architecture vertical. When the houses are on the same plain, watch and surveillance are comparatively easy. But vertical houses demand constant up and down movement over and above patrolling areas on the same level. In such a condition unobtrusive watch from outside becomes almost impossible.

Territorial distribution—Calcutta is the microcosm of Indian criminals. Employment and different avenues for earning attract many people from other States of India. In the jail, goondas coming from the Punjab shared bed with those from Tamil Nadu. Even Chinese and Burmese nationals come to its fold. But Calcutta-born gentlemen tower above them all. Their number comes to 78 persons. But all of them are not sons of the soil. Compared with them, refugees from East Pakistan form an insignificant minority. They are only 12 in number and they are only novices. The last generation of the refugees is lost in the futile search of an anchorage. The present generation tries to find it through anti-social acts.

Moral standard—A goonda's nerves are always on the strain and hence he has frequent fits of depression. But signs of depression are a death-knell to a goonda. He has to keep up his spirits. So he takes to alcohol. 102 persons are addicted to it. Only 16 persons of them smoke 'ganja'.

Wine does not always tone them up. Goondas try to find some 'kick' in the company of women as well. Women of easy virtue like to have goondas as their protectors. It is found that 96 persons visit the brothel, 13 persons live in open sin with fallen women. Thirty-eight 38 persons are married but 6 of them married girls whom they had kidnapped. Only three person have nothing to do with woman.

Education—Education is a great civilizing force. Most of the goondas are without the benefit of education. They are not licked into shape. Hence they are the sport of chance desires. Of the total number of 150 persons, 127 have no or little education, 18 of them have passed the Matriculation or School Final Examination and 5 of them have gone beyond Matriculation standard, but none of them is a graduate. Artistic qualities are inborn and may be found even among the uneducated. 2 persons are good painters, one is in the habit of writing poems, 12 are good singers and 3 can play on the 'tabla'. 14 of them are good sportsmen and one among them was a football player of international repute.

Employment—Most of the goondas have not their time well filled with honest and creative work. Only 5 persons of them have regular employment. But 123 persons have no employment at all and have no ostensible means of livelihood. Twenty-two are under-employed for they cannot stick to any work for more than a few days. Regularity grinds

the goondas. They either give up the regular job on the flimsiest pretext or are dismissed for their misconduct.

The unscrupulous traders indulging in shady deals at times escape the arms of law. But goondas generally know of their activities. Both of them are brethren of the underworld. These traders require protection, help and guidance of the goondas. To win the goondas over they pay the goondas tributes which are more handsome than the salary earned honestly. Thus easy money comes to them as royalties to their prowess and goondas also take pride in swallowing the same. This easy flow of money tempts them to get rid of the drudgery of a regular service.

Political affiliation—Many of the goondas are without any political colour. Only 23 persons have political contacts. Some fallen angels of politics may take to goondism to feed fat their ancient grudge. Frustration lands some to goondism. Again with some goondas politics are a camouflage. They put on a political hue to wriggle themselves out of a difficulty. With them politics are a means and not an end.

This survey covering the period up to 1964 gives a profile of the traditional goonda who is not very different from the criminal types in other urban concentrations. It is only in the last two or three years, however, that the intermingling of the anti-social elements with political life in the State has become so noticeable a feature of life in the greater Calcutta area. A more recent study reveals some of the developments that have taken place in this period. In this study the survey covered the *Mastan* who is not completely a social outcaste like the goonda but functions within the framework of society and yet is beginning to develop some of the attributes of a goonda.

The Mastan

Unlike other ruffians, say, the goondas, the *mastan* has greater social awareness and involvement. From Puja to politics, everywhere he is an active participant. Though he is a ruffian—a brutal, violent, lawless and turbulent person—he is an accepted man in society.

Secondly, the *mastan* has the rare ability of reshaping the public opinion in his own favour or in favour of the group he belongs to. He can easily win over the people he lives with. By love or by rendering service to them or by using force, his last resort, he can rally the public support around him.

Mastan groups—The *mastan* cannot function alone. He must belong to a group. Mere belonging again is not a sufficient condition for his full emergence. He must identify himself with the group.

The primary or the microgroups are those operating on a local basis. Localities where the primary groups operate may vary both in terms of population as well as geographical area depending on the growth of the respective operating groups.

The secondary or the macrogroups are formed by the linkage of the like-minded microgroups functioning in different localities.

In the present note only the microgroups will come under this study.

The structure—The *mastan* microgroup has a three-tier structure. First, the caucus or the leadership bracket consisting of a few top *mastans* belonging to the group. One of them is accepted as the supreme leader. He is neither elected by the members of the group nor selected by the leadership ; he has emerged to the power by virtue of his own ability, strength and efficiency. Democracy has little room in the group which is an absolutely autocratic and a totalitarian organisation where the supreme leader aided by the caucus determines every step of the group movements. Secondly, the cadres or the activist bracket who implement the decisions of the caucus like a disciplined army. Cadres are the backbone of a group. The third bracket consists of the trainees who are popularly known as the rising *mastans*.

Class and social status of the mastans—Urban *mastans* generally come from the middle class strata of the society. Their behaviour, attitude towards life and general propensities reflect a typical middle class pattern. But unlike the Bengali middle class gentry, 'the Bhadralog', they appear to be quite enterprising. They have a greater sense of organisation and tenacity in getting a thing done than their class counterparts in the society.

The working class has its representation in the group pronouncedly in the activist bracket. But their proportion is small in comparison with the middle class. The working class *mastans* have little ambition of rising to the top of the ladder. They work hard and sincerely for the group, but they are more particular about their personal gains.

The educational as well as the cultural status of the *mastans* varies from man to man. He may be a semi-literate or a highly educated person ; a man without culture or a highly cultured man such as a poet or a singer. The group accommodates all having different cultural and social status.

The educated and *mastans* of high social status have a pride of place in the group. They are the main instruments for creating a good public image for the group. They form the nexus between the group and the local institutions. They are the people whom the group tries to push to the controlling bodies of those institutions.

The group and the political parties—The political involvement of *mastan* groups is now an open secret. The involvement arises out of sheer necessity and the mutual interests of both the *mastans* and the parties concerned.

The parties require the group power of the *mastans* and also their ability to influence public opinion both for retaining as well as extending the party influence in the locality. The *mastans*, on the other hand, require the party backing for their safety and growth.

There are mainly three patterns of involvement.

First, the group acting as a subsidiary to the party in certain areas of the locality. In this case, the party is generally stronger than the group in the locality. But its influence in the locality is not evenly spread. There are certain strongholds of the opponent parties where it has got little or no access but where the *mastan* group has got greater influence and access. Under this involvement-pattern the party is generally unwilling to allow the *mastan* groups to operate in its strongholds but supports and encourages the group to function in the other parties' strongholds. The group on the other hand would try its utmost to penetrate into the party strongholds in the locality while continuing to intensify activities in their respective strongholds. Contradictions are, therefore, inherent in this pattern of involvement. As long as the support the *mastans* are getting from the party remains effective and helps them to realise greater gains, the arrangement continues but the moment the support loses its effectiveness the group would seek to dissociate itself and go to another party for support.

Secondly, the temporary involvement pattern where the *mastan* group is hired by the party for achieving certain objectives. With the completion of the job, the group dissociates itself from the party. If time and again the same group is hired by the same party, they come to a sort of mutual understanding. This pattern of involvement seems compatible with the situation where the party has greater political influence in the locality but little or no striking force.

Thirdly, the permanent involvement pattern where the caucus of the group becomes a part of the caucus by accepting or securing the membership of the party and the cadres become the party cadres. The temporary involvement pattern often leads to the pattern of permanent involvement. Instead of having the group time and again, the party tries to retain them permanently. On the other hand, the group finding the party weak in striking power and at the same time strong in political power tries to get into it in anticipation of controlling it in the future. This pattern is compatible with yet another situation where the party is weak both in terms of striking force as well as political influence. The group after becoming completely involved with the party, generally seeks to emerge to its controlling position. If it succeeds, the original party

leaders and cadres find it extremely difficult to stay in the organisation. They have to choose between staying in the party and accepting a secondary role under the primary leadership of the group caucus (which is then the party caucus) and quitting the party.

How do the *mastan* groups select their political partners? In a particular locality there are a number of operating groups and at the same time more than one political party. All parties require the support of *mastans* and *mastans* require the support of parties. One party has to be linked up with a group and vice versa.

This linking up of a *mastan* group with a political party is an interesting process that involves six successive stages. First is the willingness to be linked up. Secondly, the selection of the party with which the group decides to be linked up. Thirdly, to find out a contact man either from inside the group or from outside it who will negotiate on behalf of the group. Fourthly, the actual negotiations. Such negotiations are always informal and leave no written documents behind them. Fifthly, the actual linking up. Finally, the training of the *mastan* cadres for party work such as postering, participating in the processions and rallies, etc. In some cases certain amount of political training is also given to them by arranging party classes and lectures.

It is quite natural that all *mastan* groups would like to be linked up with the party in power, particularly the one in charge of police and general administration. But the party in power cannot support them all. Through inter group competition one group wins the support of the most powerful party and gets itself linked up with it. Other groups again through competition get themselves linked up with the rest of the parties in order of their respective strength and political influence in the locality.

The inter-group competition takes always a violent form. All groups come to assert their striking power by fighting each other. This competition sometimes leads to the complete annihilation of a group, sometimes merger of a few groups, split in a group, and also in some cases emergence of new groups.

The revival of West Bengal socially, politically and economically, is out of the question without tackling this growing menace which is eating into the vitals of the life of this State. Firm administrative measures are undoubtedly called for. This requires a gearing up and a cleansing of the administration. Connivance of the authorities with the activities of the anti-socials is unfortunately not as rare an event as one would have wished for. But streamlining of the administration alone will not suffice to meet the challenge. The basic socio-economic causes that have given birth to a whole generation of frustrated, cynical, desperate youth hellbent for trouble of any sort have to be realised and patient efforts made to eliminate these socio-economic causes.

The situation calls for a combination of stern administrative measures with far-reaching reforms that will give employment, better living standards and—what is even more important—hope to the young generation.

16. *West Bengal and the Centre*

AGAINST the background of the fast growing socio-economic crisis in this State in general and the Calcutta Metropolitan District in particular, there is an easy surrender on the part of Bengali public opinion to the temptation of putting the entire responsibility for this sorry state of affairs on the shoulders of the Union Government. This tendency receives support from some of the statements of foreign experts like that of the World Bank Mission which some years ago expressed the following opinion :

“There is hardly any aspect of community development that is keeping pace with the growth of Calcutta’s population or with the requirements of its hinterland. The condition likewise nurtures feelings of unrest and malaise in the population which are likely to boil over from time to time in ways that are both destructive and inimical to orderly economic development. Government of India regards these problems as the concern of the West Bengal Government alone, which in turn is struggling with many other difficulties and must respond to a legislature that inadequately represents the interests of the urban areas. The very magnitude and challenge that Calcutta represents to the conscience and political commonsense of those in power no doubt in part explains the inadequacy of the response. Everybody admits that more ought to be done about it. Nobody is ready to do it.”

A specimen of the evidence on the basis of which accusations of apathy towards and even discrimination against West Bengal are levelled against the Centre is provided by the following piece from the pen of a noted Bengali journalist :

“... West Bengal’s decline started with independence and along with it or as result of it, the other States of the eastern region suffered. The Centre’s deliberate policy began bearing fruit even from the First Plan. The Congress was in power in the State till 1967 and Dr. Bidhan Chandra Roy was Chief Minister for most of these years.

No one can say that he encouraged *gheraos* or lawlessness. In fact, ideal conditions for a rapid growth of industries prevailed in the State. There were resources in abundance and trained men were available. But even Dr. Roy was powerless to make the Centre change its policy of divesting the eastern region of its economic importance, except as an earner of foreign exchange in the high-sounding name of dispersal of industries and development of the backward States.

"The chief beneficiaries of the policy are Maharashtra and Gujarat whose pull with the Centre was greater than any State, not excepting Punjab and Tamil Nadu. When Planning began, West Bengal topped the list of industrial States. The financing and licensing policies of the Government of India saw to it that Maharashtra overtake West Bengal by the end of the Second Plan and that Gujarat begins catching up fast. The outlays of these three States in the four Plans bear testimony to the changes that have been brought about.

"The outlay of the bilingual State of Bombay which then composed Maharashtra and Gujarat in the First Plan was Rs. 224 crores. Although the break-up of the figure between these two States is not available, it is accepted that West Bengal's First Plan (Rs. 154 crores) was as big as, if not somewhat bigger than, Maharashtra's. In the Second Plan, West Bengal's investments came down to Rs. 145 crores whereas Maharashtra's increased to Rs. 207 crores and Gujarat's to Rs. 143 crores. The Third Plan maintained this tendency. In the Fourth Plan, which was being discussed since long before the Congress was ousted from office in West Bengal in 1967, the allocation for West Bengal is a pitiable Rs. 322 crores compared with Maharashtra's Rs. 898 crores and Gujarat's Rs. 454 crores. Whereas in the First Plan, Maharashtra and Gujarat together had a plan about a third bigger than West Bengal's, today they together have a plan which is four times bigger than West Bengal's." (Ranajit Roy in *Hindusthan Standard*, Calcutta, March 25, 1970.)

Besides the points raised in the above, there are at least two other major questions on which allegations of discrimination against West Bengal are voiced by spokesmen for this State. One is the exclusion of refugees from East Pakistan from the purview of the Nehru-Liaquat Agreement under which their counterparts from West Punjab received compensation for their property left in Pakistan. This we have already referred to in a previous chapter. The other grievance relates to the devolution of Centrally pooled taxes and grants. On this second point, Mr. Ajoy Mukherjee, Chief Minister of the then U. F. Government of West Bengal who also held the Finance portfolio, said in his budget speech on February 20, 1970:

"The Fifth Finance Commission seemed to have framed their recommendations in such a way that while on the one hand seven

States were left with huge surpluses amounting to Rs. 1,271 crores, West Bengal (and in all probability a number of other States) was obviously left with large deficits notwithstanding the devolutions and grants recommended by the Commission. These surpluses have enabled some of the States to augment their Plan outlays whereas a State like West Bengal would be unable to maintain, without special assistance, even a Plan of Rs. 320.51 crores envisaged in the Draft Plan. As a result of the recommendations of the Fourth Finance Commission only six States were left with surpluses amounting to Rs. 373.73 crores.

"Thus the Fifth Finance Commission have only accentuated the financial disparities, notwithstanding its intention to help the weaker States."

Per Capita Plan Outlay and Central Assistance

(In rupees)

	Total for 18 years (1951-1969)		Fourth Plan (1969-74)	
	Plan outlay	Central assistance	Plan outlay	Central assistance
Andhra Pradesh	243	149	90	66
Assam	269	201	161	157
Bihar	181	109	82	63
Gujarat	346	132	188	66
Haryana	81 @	52 @	212	87
Jammu & Kashmir	453	416	382	382
Kerala	264	161	133	90
Madhya Pradesh	223	164	96	71
Maharashtra	300	102	178	54
Mysore	292	162	122	65
Nagaland	715	715	875	875
Orissa	309	214	81	71
Punjab @ @	395	242	206	77
Rajasthan	260	202	101	93
Tamil Nadu	254	131	136	55
Uttar Pradesh	190	111	114	63
West Bengal	243	141	79	54
ALL STATES Total	253	147	123	71

@ Figures relate to 1966-69 Annual Plans only.

@ @ Composite Punjab up to reorganisation.

Source : Govt. of India, *Report of the (Fifth) Finance Commission*, 1969, p. 101.

Let us now try to examine the basis of these grievances, nurtured by the Bengalis.

Let us, first of all, take the question of Plan outlays by the States. The table above gives the figures of *per capita* outlay by the States.

It will be seen from the table that in terms of the total *per capita* outlay for the 18 year period (1951-1969), West Bengal really occupied one of the lowest positions among the 16 States for which comparable data are available. Her position, along with Andhra Pradesh, was the 12th, above only Madhya Pradesh, Uttar Pradesh and Bihar. But, can it be said that this lagging behind on the part of West Bengal was due solely or even mainly to Centre's discrimination against the State. Figures, however, do not sustain such a view. It will be seen that the total *per capita* Central assistance to West Bengal during this 18 year period was Rs. 141 which was higher than Gujarat's Rs. 132, Tamil Nadu's Rs. 131 and Maharashtra's Rs. 102. Even in the Fourth Plan in which West Bengal's *per capita* Plan outlay is the lowest of all at Rs. 79, *per capita* Central assistance at Rs. 54 is the same as in Maharashtra's Fourth Plan and only a rupee less than Tamil Nadu's.

So, it would appear from the above that West Bengal's shortfall in Plan outlay was not mainly due to any adverse discrimination by the Centre. It was mainly due to the State's failure to mobilise better the internal resources.

Besides, it should also be noted that Central investment on industrial projects located in West Bengal during the period 1951-1968 amounted to Rs. 408.2 crores as against only Rs. 48.0 crores in Gujarat and Rs. 49.9 crores in Maharashtra.

Let us now examine the question of discrimination against West Bengal in the matter of granting industrial licences. The table below provides the relevant figures.

It will be seen from the table below that on the whole, along with the other advanced States like Maharashtra, Gujarat, Mysore and Tamil Nadu, West Bengal also got a favoured treatment in the matter of industrial licensing. While for all other States, the proportions of licences issued to the respective States were less than their shares in the total number of applications, in the case of these advanced States the proportions were higher. Thus, for instance, although West Bengal's share in the applications was 16.30 per cent, her share in the total licences issued was 16.46 per cent. It is, however, true that the margin of favour was higher in the case of the other four advanced States. But viewed in the national context, West Bengal cannot really complain of unfavourable discrimination against herself in this matter.

**Statewise Distribution of Industrial
Licences, 1956-1966**

(Per cent shares)

<i>States</i>	<i>Total applications</i>	<i>Issued licences</i>
Andhra Pradesh	3.46	3.31
Assam	1.08	0.95
Maharashtra	25.88	27.37
Kerala	3.11	3.61
Madhya Pradesh	2.85	2.47
Tamil Nadu	8.97	9.68
Orissa	1.46	1.18
Punjab (including Haryana)	7.46	6.31
Rajasthan	1.97	1.76
Uttar Pradesh	7.72	6.71
West Bengal	16.30	16.46
Bihar	4.88	5.16
Mysore	2.98	3.26
Delhi	2.33	2.10
Gujarat	8.66	8.89
Others (including unclassified)	0.95	0.78
Total	100.00	100.00

Source : Govt. of India, *Report of the Industrial Licensing Policy Inquiry Committee*, Vol. III, p. 63.

Let us now take up the question of disbursement of financial assistance, in the form of loans, underwriting, guarantees, etc. by the government-sponsored institutions like the Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India (ICICI), Industrial Development Bank of India (IDBI), State Finance Corporation (SFC) and Life Insurance Corporation (LIC). The table below gives the relevant figures.

**Statewise Distribution of Assistance by Financial
Institutions as at the end of 1966-1967**

(Amount in Rs. lakhs)

<i>States</i>	<i>Amount</i>	<i>P. C.</i>
Andhra Pradesh	61,15	5.7
Assam	22,78	2.1
Bihar	57,80	5.4
Gujarat	94,14	8.8
Haryana	22,99	2.2
Kerala	25,17	2.4
Madhya Pradesh	26,61	2.5
Tamil Nadu	156,21	14.7
Maharashtra	282,23	26.5
Mysore	43,64	4.1
Orissa	19,62	1.8
Punjab	12,56	1.2
Rajasthan	32,91	3.1
Uttar Pradesh	54,82	5.2
West Bengal	139,73	13.1
Jammu & Kashmir	1,20	0.1
Union Territories	12,17	1.1
Total	1065,73	100.0

Source: Govt. of India, *Report of the Industrial Licensing Policy Inquiry Committee*, Vol. IV, p. 181.

In regard to financial assistance from government-sponsored financial institutions, however, West Bengal has clearly been deprived of her due. If the specific weight in the country's industrial structure is taken as the basic criterion for disbursement of financial assistance, then West Bengal, accounting for more than 20 per cent of India's ex-factory value of output as against Maharashtra's somewhat less than

25 per cent and Tamil Nadu's just below 10 per cent, should not have been allotted only 13.1 per cent of the aggregate assistance as against 26.5 per cent to Maharashtra and 14.7 per cent to Tamil Nadu.

Even if, on the other hand, financial assistance is to be related to growth, instead of aggregate industrial contribution, in that case too West Bengal's complaint of a raw deal has basis in fact. For, growth, reflected in new industrial licences has been shared by these three States during the period under reference in the following proportions: West Bengal 16.46 per cent as against 27.7 per cent for Maharashtra and 9.68 per cent for Tamil Nadu. The proportions of financial assistance are not in accord with the proportions of industrial licences granted.

The complaint on the question of the devolution of revenue from centrally pooled taxes, as voiced by Mr. Ajoy Kumar Mukherjee, however, is not really tenable, though there is a strong case for revising the scheme of division of financial resources between the Centre and the States. The principles governing the devolution are formulated by five-yearly Finance Commissions on the basis of discussions and hearings of all points of view. The formulae for distribution of the divisible pool of taxes among the States embrace multiple factors like population, respective contribution by States, an integrated index of backwardness, etc. While it is possible to have reservations about some particular component of the formulae and to seek its modifications, it is hardly justifiable to demand that certain States be deprived of their due share under a general formula simply because they have been able to secure surpluses by better management of their finances. Moreover, of the seven surplus States, referred to by Mr. Mukherjee, four States were awarded a smaller percentage of the divisible income tax pool and three States, of the excise duties pool than West Bengal.

The real source of surplus for most of the seven fortunate States lay in the relatively higher growth of income from their own revenue. The table overleaf gives the figures for revenue income from State sources for the seven surplus States and West Bengal during 1961-62 and 1968-69.

It will be seen from the above that except for Bihar, the linear growth of revenue from State sources was higher than West Bengal in the case of all the other surplus States, including the combined position of Punjab and Haryana. As separate comparable figures for these two States are not available, comparison may be made only of their combined position. The increase of their combined revenue from Rs. 77.96 crores in 1961-62 to Rs. 190.56 crores in 1968-69 reveals a linear growth of 244 per cent.

Because of the tardy growth of its own revenue in the face of the mounting obligations of this problem-ridden State, West Bengal incurred net revenue deficits of Rs. 40.14 crores during the period

from August 15, 1947 to March 31, 1969, through deficits in 12 out of twentyone and a half years. The remedy, therefore, lies in increased efforts for augmentation of the State's internal resources.

Revenue from State Sources

(Rs. crores)

State	1961-62	1968-69	P. C. increase
Bihar	79.81	166.26	208
Gujarat	62.70	157.81	251
Haryana	24.27*	74.56	
Madhya Pradesh	78.31	171.80	219
Maharashtra	118.75	356.76	300
Punjab	77.96**	126.00	
Uttar Pradesh	153.99	363.12	235
West Bengal	101.70	214.29	210

* 1966-67

** Includes Haryana

Source: Govt. of India, *Report of the (Fifth) Finance Commission*, pp. 129-34.

One direction in which better efforts are immediately indicated is the sphere of State investments. The rate of dividends earned from the State investments in 1968-69 was 0.04 per cent for West Bengal as against the all-States average of 1.35 per cent and 3.37 per cent for Gujarat, 3.08 per cent for Madhya Pradesh, 1.94 per cent for Rajasthan, 1.83 per cent for Uttar Pradesh, 1.79 per cent for Maharashtra, 1.03 per cent for Punjab, 0.75 per cent for Tamil Nadu and so on. (See *Report of the Finance Commission, 1969, op. cit.*, p. 191.)

Another grievance of West Bengal is that while this State is devoting a sizable part of its acreage to the cultivation of jute for earning foreign exchange for the national pool and feeding a sizable population of migrants from other States employed in industry, trade and services, the Centre does not care to meet fully this State's deficits in cereals. This complaint is apparently sustained by the figures received from the Food and Supply Department of the West Bengal Government which we reproduce below.

Overall Position of West Bengal in respect of Cereals During 1965 to 1969

(Figures in thousand tonnes)

Year	Gross Yield of Cereals			Net yield of cereals (a)	Estimated population in lakhs (b)	Consumption requirement of cereals (b)	Surplus (+) or deficit (—) on the basis of local production and consumption requirement	Net imports of cereals on Government account	
	Total rice	Other cereals	Total cereals					Rice	Wheat
(1)	(2.1)	(2.2)	(2.3)	(3)	(4)	(5)	(6)	(7.1)	(7.2)
									(7.3)
1965	5629.0	98.3	5727.3	5154.6	392	6490.1	(—) 1335.5	273.9	738.1
1966	4952.2	115.2	5067.4	4560.7	402	6655.7	(—) 2095.0	191.1	1460.0*
1967	4898.3	143.2	5041.5	4537.4	412	6821.2	(—) 2283.8	180.5	1011.8@
1968	5332.2	152.6(c)	5484.8(P)	4936.3	422	6986.8	(—) 2050.5	231.6	1285.2£
1969	5660.9	230.4(P)	5891.3(P)	5302.2	437.6(d)	7245.1	(—) 1942.9	155.9	1153.9

(a) After deducting 10% for seed, wastage etc. from gross yield as accepted by the Price Enquiry Committee at page 111 of their Report.

(b) At the rate of 16 ounces (453.6 grms.) of Cereals per head per day as recommended by the Price Enquiry Committee at page 112 of their Report.

(c) Actual for Wheat, Barley and other Bhadoi Cereals and normal for other crops.

(d) Mid-year population estimate of the Registrar General of India.

(P) Provisional.

* Including 32.8 thousand tonnes of Milo.

@ Including 40.4 thousand tonnes of Milo, 23.0 thousand tonnes of Maize and 13.0 thousand tonnes of Barley.

£ Including 28.8 thousand tonnes of Milo, 67.6 thousand tonnes of Maize and 16.5 thousand tonnes of Barley.

N. B. The Central Government removed inter-State movement restrictions on coarse grain (jowar, bajra, maize etc.) from March 1968 and West Bengal was included along with the main wheat producing States in the Northern Wheat Zone from April 1969.

Source : West Bengal Govt., Food & Supply Dept.

A comparison of the columns 6 and 7.3 of the table on 149 will show that Central supplies of cereals left uncovered deficits varying from over 300,000 tonnes in 1965 to over 9 lakh tonnes in 1967. But, it should at the same time be noted that in all the years under reference, Central supply was never below a million tonnes and was as high as over 1.6 million tonnes in 1966. And, it should also be remembered that almost throughout the post-independence period the country as a whole had been passing through serious food shortage, sometimes, as in 1966 and 1967, verging on famines in certain areas. So, the figures rather tend to convey that within fundamental limitations of capacity, the Centre tried to help West Bengal as much as possible.

From the paragraphs above, one should not run away with the idea that West Bengal has no justifiable grounds of complaint against the Centre at all. On the contrary, this State has very strong grounds of criticism about the Centre's role in relation to a number of important issues vitally affecting the life and living of the people of this State. To put West Bengal's relation with the Centre in perspective, they deserve mention.

First of all, the refugee rehabilitation programme. That there has been in practice, if not in desire, a serious discrimination against the migrants from East Pakistan, relative to their counterparts from West Punjab we have discussed in a previous chapter and need not repeat here.

That the Centre has been guilty of gross neglect of the great metropolitan city of Calcutta has been discussed in great detail in a previous chapter. This has also been confirmed by foreign experts like the Hoffman Mission and need not be dilated upon.

While the equalisation of steel prices and subsidisation of coal prices have taken away much of the locational advantages enjoyed by the West Bengal industries, similar levelling down of locational advantages with regard to, say, raw cotton, has not been attempted to bring a measure of benefit to the weaker industries in this State.

The following editorial comment by a Calcutta daily provides a specific instance of relative neglect, if not discrimination. The editorial reads :

"The refusal by the Government of India and the all-India finance institutions to participate in the share capital of the autonomous textile corporation the State Government proposes to set up for re-opening the closed textile mills in West Bengal is unjustified. This is a glaring example of the step-motherly attitude of the Centre to the burning problems of this State. Over a dozen out of some 40 cotton mills in West Bengal have been closed, throwing out of employment some 20,000 employees. Some of them were no doubt economically unsound. But quite a few others had just temporary difficulties and if

they could be assisted with finance, adequate supplies of raw cotton and foreign exchange for modern machinery, they could once more be developed into viable units. Among them are the Banga Laxmi, the Dhakeshwari, the Bangashri Cotton Mills and the Mohini Mills. Rehabilitation of such mills is vital to the economic revival of this State.

"The budget adopted by the United Front Government rightly provided for the taking over of some of these mills as a major step for getting the closed concerns restarted. In this context the proposal for setting up an autonomous corporation with experienced men from the industry as a whole, representatives of the Government and consumers is a wise one. The public corporation is an accepted and widely prevalent form of organisation for running State enterprises. A textile corporation has already been brought into existence by the Centre with a capital provision of about Rs. 17 crores on a national basis but it has devoted itself so far to the reconstruction of viable but sick mills taken over by the Government in the Western region. There is, therefore, no basis for the plea that participation in share capital does not accord with the Centre's policy of extending financial assistance to sick textile mills. The L. I. C. and other finance institutions have also adduced a meaningless argument that they cannot finance one particular industry. Whatever may have happened in the past they must now revise their policy to suit present-day needs." (*Hindustan Standard*, Calcutta, August 21, 1970.)

But the most patent discrimination suffered by West Bengal is in the sphere of allocation of the scarce and imported raw materials which we have discussed in connection with the problems of the small scale industries. The Survey Committee on the Engineering Industry, appointed by the Government of West Bengal, made a bitter criticism of the Centre's role in this respect, from which we quote below a few excerpts.

"Unfortunately for West Bengal the overall shortage of imported raw materials was not shared equally by all States. Under the system of ad hoc allocations adopted by the Centre, having no bearing to the installed capacities existing in various States, West Bengal's small engineering units were particularly discriminated against in the matter of allocation of imported raw materials.

"The 105th Report of the Lok Sabha Estimates Committee strongly commented on such discrimination.....

"The problem of raw materials supply for the engineering industries of the State was aggravated further because of the policy adopted by the Centre. For example, in allocating G. P. and G. C. sheets, the Joint Plant Committee took the population of the States as the basis. As it is, the price equalisation of iron and steel items at all railheads

has taken away the competitive advantage of the light engineering industry of the State. The only rational yardstick that should be accepted in the matter of allocation of scarce category of raw materials, imported as well as indigenous, is the installed capacity of the units existing in the State to be assessed by an independent authority under the auspices of the Central Government.

“One naturally wonders why in spite of the clear recommendation made by the Lokanathan Committee on raw materials allocation that was appointed by the Centre, a yardstick, other than the installed capacity existing in the States, has been adopted in allocating the States’ ceiling of foreign exchange.” (*Report*, mimeographed copy, *op. cit.*, pp. 64-6.)

To conclude, this brief survey of the Centre’s dealings with West Bengal and its problems leads to one broad conclusion that while demanding modifications and changes in certain policies and practices pursued by the Union Government affecting this State, West Bengal must also take a long and hard, self-critical look. Bemoaning Centre’s attitude on every turn is neither justified nor likely to produce any helpful result.

17. *Strategy for Survival*

THE brief survey of the socio-economic situation in West Bengal, attempted in the preceding chapters, has revealed the picture of a pervasive crisis steadily engulfing every sphere of life in this State. A combination of natural and man-made factors has blended to create an extremely gloomy and suffocating climate, most unsuitable for productive social enterprise and progress. Whether a cause or an effect of the present socio-economic milieu, or indeed both, indiscipline, disorder and, above all, violence, congenial only to the growth and proliferation of organised crime, have come to dominate life in the State.

One of the major consequences of this depressingly bleak climate—indeed, from the point of view of long-term spread-effect potential the most dangerous consequence—has been the flight of industrial enterprise away from this State. This flight has taken place in two forms. In some cases, existing establishments have shifted elsewhere; in some others, proposed expansions have been either held up indefinitely or located outside this State. This has been the attitude of not only international or national enterprises, but even some of the sons of the soils; that is, pioneering Bengali entrepreneurs, have also been compelled to act on the same lines.

If this trend continues to gain further momentum, the most fundamental cause of the social malaise, i.e., economic depression, will be further accentuated and this will only serve to intensify and perpetuate the social malaise.

This extremely bleak prospect for West Bengal and its people concerns not merely the local population but the country as a whole. For, West Bengal with its strategic geo-political situation, immense natural resources and talented people constitutes a vital and indispensable segment of our Republic. The continuing crisis in West Bengal cannot but jeopardise the security, defence, industrial and communication networks of the country, more particularly of its eastern zone. Hence, it is

high time that all Indians concern themselves with the problems and sufferings that are affecting West Bengal today. This, of course, does not mean that Bengalis need not exert themselves. No help from outside, however generously rendered, can redeem a people who fail to make a heroic effort for regeneration. And, in the recent times, in view of the growing perversities and negative proclivities that have come to afflict the social psyche of a large segment of the State's population, it will need an extra-heroic self-help effort to restore normality, instil a healthy enterprising outlook and move forward towards the regeneration of the State.

Here again, it will be an impermissible over-simplification to imply that a psychological reform is the sole demand of the situation. As delineated in the preceding chapters, the present situation in West Bengal is the end-product of a number of physical and social and economic processes, none of which can be expected to yield the desired result if tackled in isolation. For, the analytical chapters have shown that the deterioration of the river system, impact of partition, lack of development of the civic services in the Calcutta conurbation, extremely thwarted growth of certain regions within the State, the survival, notwithstanding the land-reform legislation, of the inequitable and unproductive agrarian framework, the growing unemployment, particularly of the educated and technically skilled, and the near-collapse of the education system—all accentuated by the growing lack of resources and intensified by social indiscipline in many cases—have combined to bring about the present state of affairs in West Bengal. Any master-plan for West Bengal's revival will, therefore, entail simultaneous actions in all these directions.

In some of these programmes, West Bengal can act on her own, in some others, the Centre has to take the initiative. For instance, the training of the river involves inter-State and even international cooperation which can be secured only by the Union Government. Similarly, efforts for the mitigation of the impact of partition, whether by the prevention of the migration of the refugees into West Bengal or by the planned distribution of the migrants over the rest of the country, or by the restoration of the severed economic links between the two parts of Bengal clearly lie in the Central sphere of action. But, obviously, there is still quite a large area where the initiative may be fruitfully taken by this State.

It will be extremely presumptuous to undertake here an exercise for drawing up a blueprint for West Bengal's revival. This obviously demands a long-drawn collective effort by a body of experts. The main purpose of this study is to contribute towards the creation of an atmosphere in which such an endeavour, i.e. the drawing up of a master plan for West Bengal's revival, indeed survival, may be undertaken. Since there has often been a complete lack of understanding of the real causes

of the malaise affecting the State or to offer oversimplified explanations and solutions of its problems, this study has sought to focus attention on the stupendous proportions of the problems and to place them in perspective without being parochial. It is only by understanding the situation in its totality that people within this State and outside can develop the approach and the attitude necessary for beginning the struggle for revival.

The suggestion that is offered by the authors of the study is that a West Bengal Planning and Development Organisation should be set up to draw up long term plans for the regeneration of the State based on scientific and comprehensive appraisals of the resources available, feasibility and other allied aspects. It should also be responsible for the execution of the schemes. Whether this will be a cell within the State's Development department or a separate organisation is something that the Central and State Governments will have to decide after considering all aspects of the question but in view of the colossal effort involved it would in the view of the authors of this study be desirable to set up a separate organisation for this purpose under the over-all control of the State Government. This organisation should have competent staff to undertake the necessary surveys, draw up the plans and supervise their execution. It may be pointed out in this connection that the setting up of the CMPO some years ago even though it had no powers of execution has helped tremendously in an understanding of the problems connected with greater Calcutta and, by drawing up concrete schemes and proposals, has today paved the way for a plan for the development of Calcutta which is now being executed by the Calcutta Metropolitan Development Authority (CMDA). It was the CMPO's work which also helped to mobilise the resources required by drawing up precise estimates for the execution of the schemes.

While a full-fledged blueprint for the development of West Bengal will have to await the labours of a body such as has been suggested above, the authors of this study would like to indicate some priorities and principal requirements.

(i) *Improvement of agriculture*—For providing food to the people, raw material to the agro-based industries, gainful employment and increased income to cultivating peasantry which will expand the market for the industrial products and thus create conditions for a fuller utilisation of the existing industrial capacity, the starting point has to be a spurt in agricultural development. It is worth noting that the near miraculous rate of growth in Punjab, for example, owes its inception to the remarkable break-through in agriculture achieved there. Agrarian reforms which will give the cultivating peasantry a greater incentive and provide it with a larger volume of resources for improvement of agriculture should be implemented with top priority.

(ii) Necessary *remodelling of the presently surplus industrial capacity* for producing tools and implements for the improvement of agriculture, setting up of agro-based industries, for undertaking small irrigation, drainage and dredging projects should be undertaken as also for a programme of improving rural communications, specially roads and canals.

(iii) With the increased availability of the primary wage-fund in the form of foodstuff from improved agriculture and suitable tools and implements from the remodelled industry, the unemployed manpower, both the unskilled rural labour and technically trained cadre, may be employed in growing numbers for implementing *small irrigation, drainage and dredging projects* and a programme of *improving rural communications* especially roads and canals which in turn will increase the agricultural productivity and bring other economic benefits by mitigating floods and water logging and improving the infra-structure.

(iv) *Educational reforms* by linking studies with productive labour which will yield material values in some form or other during the period of study and better equip the student for facing the world after passing out. A review of the present teaching and examination system which encourages cramming and is open to malpractices should be undertaken. In its place a system of teaching and testing that develops intelligence and adaptive skills should be introduced.

(v) A *manysided programme for mass communication* for bringing about in this State a better awareness of the deep rooted problems that face the State and lines along which they have to be solved, so that over a period a broad consensus may emerge to inspire a really national reconstruction movement. The programme should also seek to bring about a change in the negative and destructive outlook and inculcate a positive and constructive spirit.

(vi) An intensive effort to *mobilise internal resources* within the State both from the agricultural and urban sectors should be launched. Issuing of Rural Debentures which will be used for development of the region from which the funds are raised may be one plank of this programme. The starting of a West Bengal Development Bank may be another.

In view of the strategic, economic and cultural importance of this State and also in view of the fact that many of its basic problems have arisen in consequence of the partition of Bengal which was the price paid for the country's independence, a more sympathetic and helpful attitude should be adopted towards West Bengal by the Centre and other States of the Indian Union.

This involves among other things a fresh look at the devolution of finances to the State. The present weightage to population works against West Bengal which has a smaller population than some of the larger States in India. But it should not be forgotten that Bengal had

to surrender the larger slice of its territory and population as part of the bargain that gained freedom for India as a whole. A considerably higher weightage should therefore be given to "special problems" than any of the Finance Commissions have deemed fit to do so far. It also involves a greater flow of Central resources for West Bengal's planned development. In the matter of allocation of scarce raw materials, including the scarcest of them all today, steel, West Bengal should be accorded priority in view of the fact that the highest concentration of engineering industries both in the large scale and small scale sector is to be found in this region. In the matter of granting licences too, considering that the trend today is away from West Bengal, the Centre should welcome all efforts to set up new industries or to expand existing industries in the State. In the name of social objectives denial of licences either because of the comparatively higher level of industrialisation in the State or because certain companies are large or dominant undertakings in effect defeats the spirit of the social objectives by accelerating the decline of this strategic region.

Assistance from international agencies such as the U. N. and its various bodies may be sought. This should take the form not only of financial aid but also such technical assistance as may be necessary. Assistance from all channels should obviously fit in, and be subject to, the over-all planning of the Central and West Bengal Governments and of such bodies as may be set up by them.

APPENDICES

Appendix A

TABLE I

**Important Socio-Economic Indicators of the
Country and the State**

	1951		1961	
	<i>India</i>	<i>West Bengal</i>	<i>India</i>	<i>West Bengal</i>
1. Rate of growth of population (per cent)	13.31 (1941-51)	13.32 (1941-51)	21.63 (1951-61)	32.79 (1951-61)
2. Density of population (per sq. km.)	110	297	143	399
3. Percentage of Urban population to total population	17.40	23.88	18.05	24.45
4. Per capita total cultivable land (in hectare)	0.54	0.23	0.44	0.18
5. Literacy (per cent)	(a)16.60	21.51	(b)24.00	29.30

(a)=Excluding Jammu & Kashmir

(b)=Excluding Goa, Daman & Diu

TABLE II
Some Important Demographic Features of West Bengal
as revealed in 1961 Census

1. Total population (lakhs)	..	..	349.3
2. Number of male population (lakhs)	..	..	186.0
3. Percentage of male population to total population	..	..	53.25
4. Number of female population (lakhs)	..	..	163.3
5. Percentage of female population to total population	..	..	46.75
6. Urban population (lakhs)	..	..	85.4
7. Percentage of Urban population to total population	..	..	24.45
8. Rural population (lakhs)	..	..	263.9
9. Percentage of rural population to total population	..	..	75.55
10. Population of Calcutta Industrial Belt (lakhs)	..	..	55.7
11. Percentage of population of Calcutta Industrial Belt to Urban population	..	..	65.22
12. Cultivators (lakhs) (Workers only)	..	..	44.6
13. Percentage of cultivators to total population	..	..	12.77
14. Agricultural labourers (lakhs) (Workers only)	..	..	17.7
15. Percentage of agricultural labourers to total population	..	..	5.07

Source: Census Report, 1961.

Projected Population of West Bengal

Population estimates :

On the basis of the projected population of West Bengal for the years 1966 and 1971 as calculated by the Central Statistical Organisation, the estimates of population for West Bengal for each of the years between 1961 and 1971 were worked out by the Bureau of Applied Economics and Statistics following the same procedure. These figures for 1964 to 1969 are shown below together with the mid-year estimates as worked out by the Office of the Registrar General and published in the Reserve Bank of India Bulletin, January 1968.

(In lakhs)

<i>Year</i>	<i>Estimates as on March 1, by B. A. E. & S.</i>	<i>Estimates as on July 1, by Registrar General</i>
1964	378.5	382.0
1965	388.8	392.4
1966	399.4	403.1
1967	410.5	414.3
1968	421.9	425.8
1969	433.6	437.6

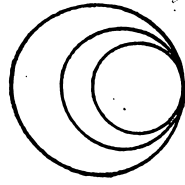
WEST BENGAL

ANTICIPATED ZONAL DISTRIBUTION

OF URBAN POPULATION

AND INDUSTRIAL EMPLOYMENT

POPULATION IN LAKHS

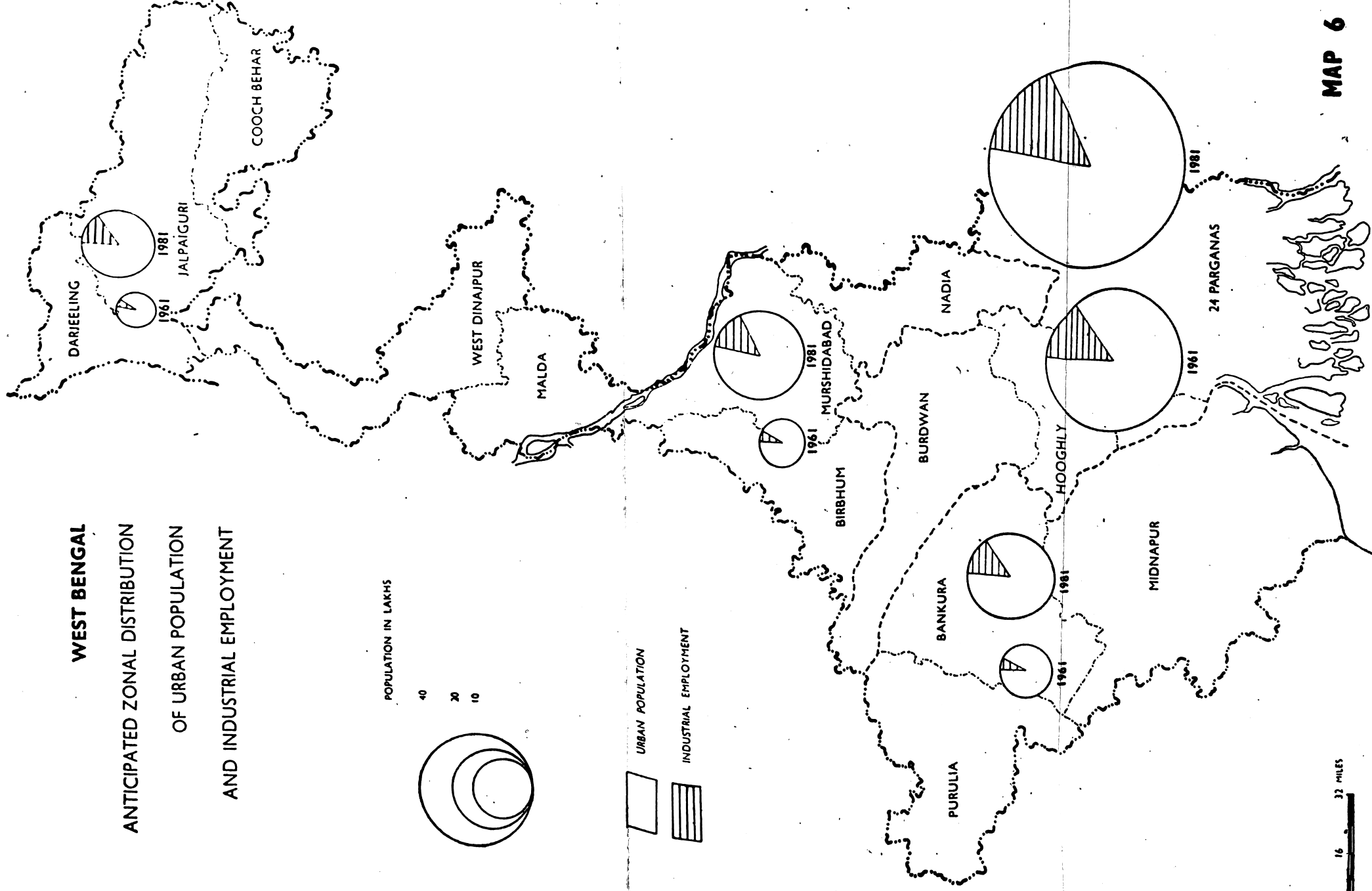


40
20
10

URBAN POPULATION



INDUSTRIAL EMPLOYMENT



16 32 MILES

TABLE III

Working Population in West Bengal

Regarding the disposition of the economically active population of the State, the latest statistics relate to the 1961 Census. It was found that the participation rate (the proportion of workers to total population) among males was 54 per cent, and that among females was 9 per cent, the overall being 33 per cent. The percentage distribution of workers among different major industrial categories was as in the following table :

	<i>1961</i> <i>p.c.</i>	<i>1951</i> <i>p.c.</i>
1. As Cultivators	38	35
2. As Agricultural Labourers	15	15
3. In Plantation, Mining, Forestry, Fishing, Livestock and Manufac- turing including Household Industry	21	21
4. In Trade and Commerce, Trans- port, Storage and Communica- tions	11	14
5. In Construction and Other Services	15	15
Total	100	100

TABLE IV
Population of Scheduled Castes and Scheduled Tribes by Districts in West Bengal, 1961

	Scheduled Castes			Scheduled Tribes		
	Male	Female	Total	Male	Female	Total
West Bengal	3,596,609	3,293,705	6,890,314	1,043,042	1,011,039	2,054,081
Burdwan	391,358	362,525	753,883	94,694	85,449	180,143
Birbhum	212,329	209,015	421,344	53,402	53,458	106,860
Bankura	249,984	242,716	492,700	86,142	87,247	173,389
Midnapore	286,795	276,611	563,406	160,774	168,962	329,736
Howrah	159,142	140,649	299,791	3,657	2,454	6,111
Hooghly	231,901	213,307	445,208	45,872	44,234	90,106
24-Parganas	799,283	725,639	1,524,922	62,066	57,252	119,318
Calcutta	82,958	43,694	126,652	2,051	469	2,520
Nadia	181,004	169,158	350,162	11,160	10,763	21,923
Murshidabad	144,271	137,897	282,168	15,791	15,661	31,452
West Dinajpur	152,041	134,412	286,453	84,118	86,031	170,149
Maldah	82,614	80,819	163,433	50,541	48,981	99,522
Jalpaiguri	223,801	194,854	418,655	185,389	169,352	354,741
Darjeeling	43,241	39,140	82,381	50,685	45,759	96,444
Cooch Behar	251,620	226,693	478,313	4,618	4,191	8,809
Purulia	104,267	96,576	200,843	132,082	130,776	262,858

Source : Census of India, 1961, Volume XVI, Part II C(i).

TABLE V

**Area, Population, Density and Sex Ratio of West Bengal
by Districts (Census 1961)**

<i>Districts</i>	<i>Area in square kilometre</i>	<i>Total population (in lakhs)</i>	<i>Rate of population growth 1951-61 (in per- cent)</i>	<i>Density per square kilometre</i>	<i>Sex ratio- females per 1000 males</i>
Burdwan	7,007.4	30.83	40.66	438	858
Birbhum	4,514.4	14.46	35.55	318	973
Bankura	6,855.8	16.65	26.17	242	981
Midnapore	13,606.3	43.42	29.26	319	952
Howrah	1,450.7	20.38	26.51	1,369	808
Hooghly	3,139.3	22.31	39.10	709	892
Purulia	6,234.1	13.60	16.33	217	973
24-Parganas	14,601.7	62.81	40.84	459	866
Calcutta	103.0	29.27	8.48	28,256	612
Nadia	3,908.5	17.13	49.65	437	948
Murshidabad	5,367.0	22.90	33.46	430	974
West Dinajpur	5,340.2	13.24	35.51	249	906
Malda	3,605.1	12.22	30.33	329	965
Jalpaiguri	6,171.7	13.59	48.27	218	854
Darjeeling	3,254.7	6.25	35.90	208	864
Cooch Behar	3,403.0	10.20	52.45	305	890
West Bengal	88,562.9	349.26	32.80	399	878
India	*3,053,585.3	4,392.35	21.50	143	941

*Figures taken according to the Surveyor General of India.

Source : Census Report, 1961.

Per Capita Income in 1960-61 to 1964-65 by States
(At current prices)

(Rupees)

States	Per Capita *				
	1960-61	1961-62	1962-63	1963-64	1964-65
Andhra Pradesh	314	341	338	381	438
Assam	349	353	349	388	441
Bihar	216	220	232	265	299
Gujarat	380	412	413	451	523
Haryana	359	372	381	481	504
Jammu & Kashmir	267	263	267	298	341
Kerala	279	295	303	328	393
Madhya Pradesh	274	282	280	323	373
Maharashtra	419	405	429	478	526
Mysore	292	316	327	372	420
Orissa	226	233	261	309	347
Punjab	383	400	421	480	575
Rajasthan	271	294	289	297	356
Tamil Nadu	344	361	365	401	434
Uttar Pradesh	244	254	258	287	374
West Bengal	386	392	420	476	498
All States (excluding Nagaland)	304	315	325	364	418

*Based on population projections as on 1st October of the years.

Source: Central Statistical Organisation, Cabinet Secretariat. The estimates have been worked out by adopting the concept of 'Income Originating' within the geographical boundaries of India.

TABLE VII

**Total State Incomes (Net Domestic Product) from
1960-61 to 1964-65 by States**

(At current prices)

(Rs. crores)

<i>States</i>	<i>Total net domestic product (All industries)*</i>				
	<i>1960-61</i>	<i>1961-62</i>	<i>1962-63</i>	<i>1963-64</i>	<i>1964-65</i>
1	2	3	4	5	6
Andhra Pradesh	1,124	1,239	1,252	1,439	1,690
Assam	409	426	433	496	580
Bihar	992	1,033	1,116	1,302	1,505
Gujarat	775	862	889	997	1,189
Haryana	269	287	303	370	427
Jammu & Kashmir	95	94	97	110	127
Kerala	465	505	533	590	725
Madhya Pradesh	878	925	943	1,114	1,320
Maharashtra	1,640	1,626	1,764	2,017	2,277
Mysore	683	755	800	932	1,075
Orissa	393	414	473	574	658
Punjab	422	454	492	578	714
Rajasthan	540	602	610	645	795
Tamil Nadu	1,155	1,229	1,269	1,409	1,552
Uttar Pradesh	1,788	1,897	1,968	2,240	2,985
West Bengal	1,331	1,391	1,531	1,780	1,916

All States

(excluding Nagaland) 12,959 13,739 14,466 16,593 19,535

*Excluding Defence, Government of India Embassies and other establishment abroad and business outside of Indian Insurers.

Source : Central Statistical Organisation, Cabinet Secretariat. The estimates have been worked out by adopting the concept of 'Income Originating' within the geographical boundaries of India.

TABLE VII
Estimates of State Income of West Bengal by Sectors (At current prices)

Sectors	1951-52	1956-57	1961-62	1966-67 (a) (R)	1967-68 (b)	1968-69 (c)
	(Rs. crores)					
1. Agriculture	2,56.83	2,68.79	4,16.32	7,01.57	9,60.90	10,47.36
2. Animal Husbandry	1.34	0.00	1.66	48.89	53.85	55.79
3. Tea	19.05	27.24	28.44	35.10	40.08	38.22
4. Forestry	0.45	1.12	1.35	2.19	2.43	2.33
5. Fishery	10.64	12.27	25.74	42.72	45.69	47.58
6. Mining	8.97	12.58	24.74	41.24	46.50	53.47
7. Factory Establishment	1,03.09	1,43.01	1,90.55	3,21.02	3,85.50	3,72.42
8. Small Enterprises	42.71	45.59	47.00	48.34	48.58	48.86
9. Banks and Insurance	7.98	11.39	18.40	36.45	41.07	44.07
10. Railways	23.73	37.18	56.83	86.76	88.20	90.02
11. Other Transport	19.60	24.20	20.61	22.76	23.12	21.74
12. Construction Activity	8.58	10.53	11.27	17.07	17.32	18.01
13. Big Trade	19.83	24.48	23.39	20.89	19.85	18.87
14. Small Trade	59.78	73.80	69.74	74.32	74.63	75.02
15. Domestic Services	11.95	14.75	15.42	14.64	14.30	13.92
16. Professions and Liberal Arts	66.14	81.63	69.01	58.49	58.62	60.28
17. Public Services	35.65	47.89	72.97	1,38.59	1,58.45	1,73.31
18. House Property	34.95	46.12	66.84	80.45	83.21	84.27
TOTAL	7,31.27	8,82.57	11,60.28	17,91.49	21,62.29	22,65.54
Per Capita Income (Rs.)	289	284	328	452	533	547

Source : Bureau of Applied Economics and Statistics, West Bengal.

(a)—Provisional
(b)—Preliminary
(c)—Quick
(R)—Revised

Note : Figures for the year 1951-52 are as before reorganisation of States.

TABLE IX
Estimates of State Income of West Bengal by Sectors (at 1951-52 prices)
(Rs. crores)

Sectors	1951-52	1956-57	1961-62	1966-67 (a) (R)	1967-68 (b) (R)	1968-69 (c)
1. Agriculture	2,56.83	2,97.46	3,74.10	3,51.11	3,86.20	3,77.55
2. Animal Husbandry	1.34	0.95	2.61	3.98	4.45	4.48
3. Tea	19.05	18.56	22.06	21.86	24.63	24.97
4. Forestry	0.45	0.61	0.67	0.84	0.84	0.84
5. Fishery	10.64	13.33	17.95	20.36	19.82	20.14
6. Mining	8.97	11.52	17.48	23.29	23.57	23.66
7. Factory Establishments	1,03.09	1,41.10	2,10.70	3,09.02	3,23.60	3,05.35
8. Small Enterprises	42.71	45.59	47.00	48.34	48.58	48.86
9. Banks and Insurance	7.98	11.39	18.40	36.45	41.07	44.07
10. Railways	23.73	37.18	56.83	86.76	88.20	90.02
11. Other Transport	19.60	24.20	20.61	22.76	23.12	21.74
12. Construction Activity	8.58	10.53	11.27	17.07	17.32	18.01
13. Big Trade	19.83	24.48	23.39	20.89	19.85	18.87
14. Small Trade	59.78	73.80	69.74	74.32	76.63	75.02
15. Domestic Services	11.95	14.75	15.42	14.64	14.30	13.92
16. Professions and Liberal Arts	66.14	81.63	69.01	58.49	58.62	60.28
17. Public Services	35.65	47.89	72.97	1,38.59	1,58.45	1,75.31
18. House Property	34.95	43.24	50.65	58.06	59.54	61.02
TOTAL	7,31.27	8,98.21	11,00.86	13,06.83	13,86.79	13,82.11
Per Capita Income (Rs.)	289	289	311	329	342	334

(a)—Provisional

(b)—Preliminary

(c)—Quick

(R)—Revised

Source : Bureau of Applied Economics and Statistics, West Bengal.

Notes : (1) Figures of items 8 to 17 are at current prices as the income from these sectors could not be calculated at constant prices.

(2) Figures for the year 1951-52 are as before reorganisation of States.

TABLE X
Comparison of Movement of Net Output at Current and Constant Prices, West Bengal and India

<i>Description</i>	<i>1961-62</i>	<i>1965-66</i>	<i>1966-67</i>	<i>1967-68</i>	<i>1968-69</i>
A. West Bengal :					
(a) Total Net Output in Crores of Rupees—					
(i) At current prices	11.60	15.64 (P)	17.91 (P)	21.62 (Pr)	22.66 (Q)
(ii) At 1951-52 prices	11.01	12.80 (P)	13.07 (P)	13.87 (Pr)	13.82 (Q)
Index Number of Total Output with 1960-61 as Base—					
(iii) At current prices	105.6	142.3	163.0	196.7	206.2
(iv) At 1951-52 prices	99.5	115.6	118.1	125.3	124.8
(b) Per Capita Net Output in Rupees—					
(v) At current prices	328	403 (P)	452 (P)	533 (Pr)	547 (Q)
(vi) At 1951-52 prices	311	330 (P)	329 (P)	342 (Pr)	334 (Q)
Index Number of Per Capita Net Output with 1960-61 as Base—					
(vii) At current prices	102.8	126.3	141.7	167.1	171.5
(viii) At 1951-52 prices	96.9	102.8	102.5	106.5	104.0
B. India :					
(a) Total Net Output in Crores of Rupees—					
(i) At current prices	1,40,63	2,05,86 (P)	2,36,47 (P)	2,79,22 (P)	—
(ii) At 1951-52 prices	1,37,95	1,50,45 (P)	1,51,73 (P)	1,65,25 (P)	—

Index Number of Total Output with
1960-61 as Base—

(iii) At current prices	105.7	154.7	177.7	209.8	--
(iv) At 1951-52 prices	103.7	113.1	114.0	124.2	--

(b) Per Capita Net Output in Rupees—

(v) At current prices	317	420(P)	471(P)	543(P)	—
(vi) At 1960-61 prices	311	307(P)	302(P)	321(P)	—

Index Number of Per Capita Net
Output with 1960-61 as Base—

(vii) At current prices	103.3	137.1	153.6	177.0	—
(viii) At 1960-61 prices	101.3	100.2	98.6	104.8	—

P = Provisional

Pr = Preliminary

Q = Quick

Sources: (1) Bureau of Applied Economics and Statistics, West Bengal.

(2) Estimates of National Product (Revised Series) March 1969.

TABLE XI
Classification of Land in West Bengal during Aman Season 1965-66 to 1968-69

(Percentage Distribution of Area under Survey*)

Year	Aman crop	Other crops	Total	Homestead and orchard	Water surface	Unculturable waste	Culturable Waste	Current Fallow**	Old Fallow	Others	Total
1965-66	51.4	10.1	62.5	4.9	7.2	0.7	5.6	9.9	1.4	7.8	100.0
1966-67	51.6	10.1	61.7	5.1	6.7	0.6	5.5	11.4	1.4	7.6	100.0
1967-68	50.9	10.4	61.3	5.2	6.9	0.6	5.4	11.7	1.4	7.5	100.0
1968-69	50.5	10.5	61.0	5.1	7.1	0.6	5.8	11.5	1.2	7.7	100.0

*Reserved forests, big river beds, small pockets of land in Eastern Pakistan, Municipal areas and three hilly sub-divisions of Darjeeling district are excluded from the scope of crop survey.

**Current fallow indicates the land in which no crop was sown during the season under survey but was cultivated during any of the previous two crop seasons and does not include area which remained fallow for more than a year. Thus the definition of the term differs from the same adopted by the Government of India.

Source: Govt. of West Bengal, *Economic Review*, 1969-70.

TABLE XII
Index Number of Agricultural Production in West Bengal
(Base: Crop Year 1949-50=100)

	Average of 1951-52 to 1955-56	Average of 1956-57 to 1960-61	Average of 1961-62 to 1965-66
I. Foodgrains			
Rice	113.93	112.24	123.48
Pulses	111.69	112.73	123.49
	140.29	107.80	127.11
II. Non-Foodgrains			
Jute	116.89	117.23	158.81
	132.82	129.09	200.70
Tea	108.16	103.55	114.53
Oil seeds	102.75	83.84	92.28
Sugarcane	111.91	135.14	171.24
Potato	116.22	133.97	205.82
Tobacco	88.03	84.06	93.86
III. All Combined	114.71	113.56	132.81

Source : Govt. of West Bengal, *Economic Review, 1969-70*.

TABLE XII
Production of Principal Crops in West Bengal

(In thousand metric tons)

Sl. No.	Crop	*1951-52	*1956-57	1961-62	1965-66	1966-67	1967-68	1968-69
1	2	3	4	5	6	7	8	9
<i>Foodgrains-Cereals</i>								
1.	Rice	3,534.4	4,406.2	4,798.4	4,893.1	4,824.3	5,208.3	5,780.0
2.	Wheat	41.4	25.8	34.4	34.0	45.5	71.1	—
3.	Barley	36.5	29.5	42.8	30.0	36.3	34.2	—
4.	Maize	27.5	38.1	29.9	42.5	39.6	45.8	39.2
5.	Other Cereals	11.9	12.0	7.7	10.4	10.9	15.5	—
Total Cereals								
		3,651.7	4,511.6	4,913.2	5,010.0	4,956.6	5,374.9	
<i>Pulses</i>								
6.	Gram	167.0	107.7	80.1	106.7	146.4	95.8	—
7.	Tur	13.0	7.2	23.4	31.3	33.0	32.1	—
8.	Other pulses	211.4	154.3	238.4	300.3	246.8	238.2	—
Total pulses								
		391.4	269.2	341.9	438.3	426.2	366.1	—
Total Foodgrains								
		4,043.1	4,780.8	5,255.1	5,448.3	5,382.8	5,741.0	—

Non-Foodgrains—Oilseeds

9.	Rape and Mustard	39.5	24.9	34.1	41.3	44.1	35.3	—
10.	Linseed	7.7	7.3	7.7	12.1	14.1	9.0	—
11.	Other Oilseeds	6.0	3.5	3.4	5.8	7.0	10.5	—

Total Oilseeds

		53.2	35.7	45.2	59.2	65.2	54.8	—
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Fibres

12.	Jute (c)	2,114.1	1,219.9	3,040.4	2,019.0	2,587.8	3,468.3	1,196.6
13.	Mesta (c)	52.8	729.0	648.7	360.8	286.9	313.9	193.0
14.	Other fibres (c)	24.6	17.5	19.2	11.0	8.4	7.4	6.5

Total Fibres (c)

		2,191.5	1,966.4	3,708.3	2,390.8	2,883.1	3,789.6	1,396.1
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Miscellaneous crops

15.	Sugarcane (Gur)	83.3	112.4	181.8	179.0	130.0	117.8	—
16.	Potato	449.0	310.2	731.6	859.7	642.0	642.6	—
17.	Tobacco	9.9	9.4	13.0	13.7	13.9	10.2	8.9
18.	Tea (a) (b)	78,158.0	75,550.0	86,258.0	86,979.0	87,015.0	96,584.0	—

*Excluding areas transferred from Bihar.

(a) Figures relate to calendar year.

(b) In thousand Kilograms.

(c) In thousand bales of 200 Kgs. each.

Sources : (1) Directorate of Agriculture, West Bengal.

(2) Tea Statistics.

TABLE XIV
Areas Under Principal Crops in West Bengal

(In thousand hectares)

Sl. No.	Crop	*1951-52	*1956-57	1961-62	1965-66	1966-67	1967-68	1968-69
1	2	3	4	5	6	7	8	9
<i>Foodgrains</i>								
<i>Cereals</i>								
1.	Rice	3,839.7	4,072.4	4,421.5	4,650.7	4,648.7	4,714.4	4,838.8
2.	Wheat	52.7	81.4	45.8	41.2	55.4	79.0	—
3.	Barley	44.3	70.1	61.1	34.4	54.0	52.4	—
4.	Maize	41.7	51.2	52.4	50.3	49.1	51.5	45.5
5.	Other Cereals	19.7	21.0	18.5	19.9	21.0	24.1	—
Total Cereals		3,998.1	4,296.1	4,599.3	4,796.5	4,828.2	4,921.4	—
<i>Pulses</i>								
6.	Gram	197.3	172.1	164.8	142.5	200.9	167.6	—
7.	Tur	16.6	15.7	38.8	41.2	36.5	40.4	—
8.	Other pulses	371.0	383.4	560.9	587.3	559.7	496.6	—
Total pulses		584.9	571.2	764.5	771.0	797.1	704.6	—
Total Foodgrains		4,583.0	4,867.3	5,363.8	5,567.5	5,625.3	5,626.0	—

*Non-Foodgrains
Oilseeds*

9. Rape and Mustard	88.1	71.8	115.5	98.4	107.5	111.9	—
10. Linseed	18.2	47.9	50.6	39.3	35.0	35.6	—
11. Other Oilseeds	14.3	6.5	7.0	11.1	14.5	16.6	—

Total Oilseeds

	120.6	126.2	173.1	148.8	157.0	164.1	—
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Fibres

12. Jute	354.5	271.9	463.1	403.6	423.4	496.0	268.7
13. Mesta	8.0	120.1	137.7	75.2	64.0	56.3	42.0
14. Other fibres	7.1	11.8	6.5	2.9	2.1	2.0	1.7

Total Fibres

	369.6	403.8	607.3	481.7	489.5	554.3	312.4
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Miscellaneous Crops

15. Sugarcane	18.7	22.8	34.4	39.3	29.5	26.7	—
16. Potato	42.1	47.1	57.5	82.1	75.8	78.5	—
17. Tobacco	15.7	15.3	16.5	15.9	16.2	11.6	10.4
18. Tea	79.1	81.3	82.9	85.6	86.4	—	—

*Excluding areas transferred from Bihar.

Sources: (1) Directorate of Agriculture, West Bengal.

(2) Tea Statistics.

TABLE XV
Area Irrigated by different Sources

(In thousand hectares)

<i>Sources</i>	<i>1951-52</i>	<i>1956-57</i>	<i>1961-62</i>	<i>1963-64</i>	<i>1964-65</i>
1	2	3	4	5	6
Government Canal	170.35	240.38	506.50	526.13	545.39
Private Canal	282.92	372.72	390.93	389.11	395.30
Tank	379.89	308.37	332.62	330.10	333.91
Well	12.12	15.58	16.07	15.90	16.55
Other Sources	284.05	198.50	186.76	183.69	187.13
Total	1,129.33	1,135.55	1,433.88	1,444.93	1,478.28

Note: Information includes areas transferred from Bihar 1961-62.

Source: Directorate of Agriculture, West Bengal.

TABLE XVI

**Gross Value of Agricultural Output per Worker
Engaged in Agriculture**

(In Rupees)

<i>States</i>	<i>1952-53</i>	<i>1961-62</i>	<i>Percentage rate of increase in output</i>
1. Andhra Pradesh	526.93	445.68	-1.71
2. Assam	917.11	740.11	-2.14
3. Bihar	371.17	336.96	-1.02
4. Maharashtra	399.11	436.77	+1.05
5. Gujarat	492.69	660.12	+3.78
6. Kerala	1,106.08	1,366.55	+2.62
7. Madhya Pradesh	391.14	513.31	+3.56
8. Madras	758.07	668.36	-1.31
9. Mysore	626.35	557.73	-1.22
10. Orissa	754.32	578.42	-2.59
11. Punjab	645.12	911.06	+4.58
12. Rajasthan	341.28	431.92	+2.95
13. Uttar Pradesh	426.92	485.35	+1.52
14. West Bengal	1,022.60	853.41	-1.84
All India	512.53	527.89	+0.33

Source: Contrasts in Indian Agriculture, Agro-Economic Research Centre, University of Delhi.

TABLE XVII

**Internal Procurement of Rice, Receipts of Cereals
from the Central Government and Off-take
of Rice in West Bengal**

(In thousand metric tons)

	1964	1965	1966	1967	1968
1. Internal Procurement in terms of Rice.	163.4	375.2	507.9	150.6	318.9
2. Quantity of Cereals received from the Central Government—					
(i) Rice ..	181.8	273.9	191.1	180.5	241.7
(ii) Wheat— ..					
(a) Govt. account.	108.5	373.1	1,119.0	753.8	1,125.7
(b) Trade account.	667.2	365.0	308.2	181.6	236.9
TOTAL	775.7	738.1	1,427.2	935.4	1,362.6
(iii) Milo	—	—	32.8	40.4	28.8
(iv) Barley	—	—	—	13.0	16.5
(v) Maize	—	—	—	23.0	67.6
3. Off-take of Rice from the Statutory Ration Shops	—	417.6	406.1	243.1	311.4
4. Off-take of Rice from the Modified Ration Shops	288.9	223.6	302.3	39.6	111.9

Notes: (1) Internal procurement operations were handed over to Food Corporation of India from 12th December 1966.

(2) Statutory Rationing was introduced in Calcutta Industrial Area from 5th January 1966 and in Asansol and Siliguri Areas from 22nd February 1966 and subsequently withdrawn from Siliguri from 1st January 1968.

Source: Economics & Statistical Adviser, Department of Food and Supplies, Government of West Bengal.

TABLE XVIII

**Contribution of West Bengal in Some of India's
Major Industries**

(By percentage of quantity produced)

<i>Serial No.</i>	<i>Industry</i>	<i>1967</i>	<i>1968</i>
1.	Cotton yarn	5.1	5.4**
2.	Cotton cloth/Mill made ..	5.0	5.0**
3.	Paper & Paper Board ..	19.6	19.0
4.	Sulphuric Acid	7.5	10.9
5.	Pig Iron	..	..
6.	Finished Steel	..	..
7.	Sewing Machine	61.8	68.2
8.	Electric Fans	74.1	68.7
9.	Railway Wagons	48.7*	..
10.	Bicycles (Complete) ..	20.4	19.2

*Relates to 1967-68

**January to September 1968.

Source : Government of West Bengal, *Economic Review*, 1969-70.

TABLE XIX

**Ex-factory Value of Industrial Output of
West Bengal and India**

Year	<i>Ex-factory Value of Output</i>				
	<i>Values in crores of Rupees</i>		<i>Percentage of the value of West Bengal to India</i>	<i>Index with base 1959=100</i>	
	<i>India</i>	<i>West Bengal</i>		<i>India</i>	<i>West Bengal</i>
1959	26,91	5,98	22.2	100.0	100.0
1960	31,50	7,20	22.9	117.1	120.4
1961	39,63	8,14	20.5	147.3	136.1
1962	41,76	9,44	22.6	155.2	157.9
1963	45,01	10,38	23.1	167.3	173.6
1964	56,26	12,07	21.5	209.1	201.8
1965(R)	65,02	12,78	19.7	241.6	213.7
1966(R)	72,13	14,53	20.1	268.0	243.0

Source : Central Statistical Organisation (I. S. Wing).

TABLE XX

**Registered Working Factories in West Bengal
by Districts**

<i>Districts</i>	<i>Number in different years</i>					
	1952	1957	1961(P)	1965(P)	1966(P)	1967(P)
1	2	3	4	5	6	7
West Bengal	2,625	3,410	4,311	5,643	5,714	5,658
Burdwan	71	125	199	232	213	208
Birbhum	50	69	74	83	80	75
Bankura	37	54	61	71	66	51
Midnapore	61	88	103	111	100	93
Howrah	552	674	866	1,177	1,215	1,193
Hooghly	86	117	155	193	188	166
24-Parganas	1,009	1,331	1,757	2,533	2,608	2,621
Calcutta	385	471	548	666	666	678
Nadia	6	8	25	53	57	58
Murshidabad	13	20	14	13	15	19
West Dinajpur	15	34	33	33	33	32
Malda	2	4	6	4	7	10
Jalpaiguri	180	191	226	228	280	226
Darjeeling	151	161	171	176	175	167
Cooch Behar	7	12	13	12	11	11
Purulia	—	51	60	58	50	50

(a) Figures include transferred areas of Bihar from 1957.

(b) Figures exclude defunct and closed factories.

Sources : (1) *Annual Report on the Administration of Factories Act, West Bengal.*
(2) Chief Inspector of Factories of West Bengal.

TABLE XXI

Installed Capacity, Generation and Sale of Electricity

		1965-66	1966-67	1967-68
Installed Capacity (Thousand k. W.)				
(derated)	..	1,243.0	1,498.4	1,528.6
Generation (Million k. W.h)	..	4,080.4	4,819.7	5,291.4
Import (Million k. W.h)	..	793.7	759.2	77.9*
Sales within the State (Million k. W.h)	..	4,010.9	4,243.7	4330.3
Domestic and Residential consumption (Million k. W.h)	..	509.0	561.0	574.8
Commercial light and power (Million k. W.h)	..	172.5	190.9	193.1
Industrial power (Million k. W.h)	..	2,975.5	3,047.2	3,089.3
Public lighting (Million k. W.h)	..	29.9	32.3	34.4
Traction (Million k. W.h)	..	209.3	286.8	306.2
Irrigation (Million k. W.h)	..	4.2	7.7	13.5
Public Water Works and Sewage pumping (Million k. W.h)	..	110.5	117.8	119.0

*D. V. C. is functioning within the State and therefore its generation is not included here as import.

Source : Government of West Bengal, *Economic Review*, 1969/70.

TABLE XXII

Industrial Disputes in West Bengal

(Number)

	1967(R)	1968	January to September	
			1968(R)	1969(P)
(1) Stoppages	438	417	360	710
(2) Workers involved	165,102	263,450	227,778	645,187
(3) Man-days lost	5,015,852	6,722,548	5,517,622	8,549,203

Source : Govt. of West Bengal, *Economic Review*, 1969-70.

R : Revised

P : Provisional

TABLE XXIII

**Registered Factory Employment in the Different Districts of
West Bengal, 1951-66**

(In lakhs)

Districts	1951	1954	1959	1965	1966	Vol. of increase (+) or decrease (-)	
						1951-65	1965-66
1. Calcutta and 24-Parganas	3.75	3.35	3.57	4.63	4.45	+0.88	-0.18
2. Howrah and Hooghly	1.92	1.88	2.03	2.76	2.53	+0.84	-0.23
3. Burdwan	0.40	0.38	0.54	0.76	0.77	+0.36	+0.01
4. Other 11 districts	0.48	0.49	0.61	0.65	0.65	+0.17	0.00
Total West Bengal	6.55	6.10	6.75	8.80	8.40	+2.25	-0.40

Source : Report of the Survey Committee on the Engineering Industry in West Bengal, 1951-68.

TABLE XXIV
Employment through Employment Exchanges
(In thousands)

	1967	1968	January to September	
			1968	1969
(1) Registration	332.7	326.9	248.4	237.7
(2) Placed in employment	33.1	32.8	24.9	20.7
(3) On the register at the end of the period	445.7	444.8	45.11	466.9
(4) Vacancies notified	55.2	61.0	46.8	35.8

TABLE XXV
UNEMPLOYMENT

Dependable statistics about the overall employment and unemployment position for the State are not available at present. A picture can, however, be drawn up from the fragmentary data from different sources. The position as at the end of the Third Five Year Plan period is given below :—

	<i>Millions</i>	
(1) Backlog of unemployment at the beginning of Third Five Year Plan	..	2.03
(a) Open unemployment	..	0.65
(b) Disguised unemployment in agriculture	..	1.38
		2.03
(2) Addition to labour force during Third Plan period	..	1.04
		3.07
(3) Employment generated during the Third Plan	..	1.57
(a) In the non-agricultural sector	..	1.28
(b) In the agricultural sector	..	0.29
		1.57
(4) Unemployment at the end of Third Plan	..	1.50
(a) Open unemployment	..	0.50
(b) Disguised unemployment in agriculture	..	1.00
		1.50

Source : Govt. of West Bengal, *Economic Review*, 1969-70.

TABLE XXVI

ROADS

Extra Municipal Roads under the Control of Public Works
Department in West Bengal

	<i>As on 31st March 1966 (In kilometres)</i>	<i>As on 31st March 1967 (In kilometres)</i>
Burdwan	965.0	
Midnapore	1,095.8	
Bankura	652.4	
Purulia	442.3	
Birbhum		
Nadia		
Murshidabad	2,787.1	2,885.3
Maldah		
Howrah	107.1	426.2
Hooghly	888.9	910.4
Jalpaiguri	906.1	908.5
Cooch Behar	1,361.4	1,245.2
Darjeeling	744.2	719.6
West Dinajpur	677.4	794.9
24-Parganas	2,093.0	2,081.1
West Bengal	12,720.7	14,137.5

Source: Govt. of West Bengal, *Economic Review, 1969-70*.

TABLE XXVII

CALCUTTA CITY TRANSPORT

Activities of Calcutta State Transport Corporation

<i>Particulars</i>	<i>Year</i>	
	<i>1967-68</i>	<i>1968-69</i>
1. Number of Routes	29	29
2. Route length (Kilometres)	388	388
3. (a) Number of Vehicles as on the 31st March	1,106	1,083
(b) Average during the year	1,105	1,120
4. Average number of Vehicles run on road per day	655	593
5. Average number of persons employed per day (excluding Central Workshop)	12,601	12,378
6. Total Kilometres run (gross) (in '000)	40,893	34,286
7. Total passengers served (in '000)	390,173	372,666
8. Total earnings (Rs. in '000)*	54,232	54,203

*Provisional

Calcutta Tramways Company Ltd.

During 1968-69 the number of passengers carried by tram cars was 29,96 lakhs and the total road-length run was 1,72.5 lakh kilometres as against 32,32 lakh passengers and 1,86.5 lakh kilometres respectively during the preceding year. The total earning, however, increased during the period and stood at Rs. 3,26 lakhs as against Rs. 3,19 lakhs of the preceding year.

Source: Govt. of West Bengal, *Economic Review*, 1969-70.

TABLE XXVIII

**Revenue Receipts and Revenue Expenditure of
West Bengal Government**

(Rupees in lakhs)

	<i>1967-68 (Actual)</i>	<i>1968-69 (Revised)</i>	<i>1969-70 (Budget)</i>
1. Revenue Receipts	1,98,99	2,22,92	2,34,77
(a) Tax Revenue	1,46,85	1,57,51	1,59,86
(i) Sales Tax Revenue	1,08,09	1,13,02	1,15,31
(ii) Share of Centrally levied Taxes	38,76	44,49	44,55
(b) Non Tax Revenue	52,14	65,41	74,91
2. Revenue Expenditure	2,04,12	2,57,63	2,54,56

TABLE XXIX
Expenditure on Nation Building Heads on Revenue Account
(Rs. Lakhs)

Nation Building Heads	1956-57 (Actual)	1961-62 (Actual)	1966-67 (Actual)	1967-68 (Actual)	1968-69 (Revised)	1969-70 (Budget)
(a) Education	10.08	21.30	36.94	45.87	47.36	55.67
(b) Medical	4.00	7.20	12.59	15.33	14.62	16.88
(c) Public Health	1.45	3.03	4.41	6.04	6.91	10.46
(d) Agriculture	4.46	4.98	12.35	13.94	15.93	15.86
(e) Animal Husbandry	29	77	2.06	1.80	1.99	2.15
(f) Co-operation	22	52	82	95	1.31	1.19
(g) Industries	1.30	3.24	4.29	4.90	5.50	5.78
(h) Electricity Schemes	..	..	..	..	..	..
(i) Scientific Departments	1	1	(R) 1	1	1	1
(j) Irrigation	2.27	2.26	(R) 3.42	3.50	5.60	4.62
(k) Multipurpose River Schemes	69	1.20	2.70	2.86	6.63	6.72
(l) Civil Works	3.61	5.16	11.72	8.82	10.86	8.85
(m) Road and Water Transport	..	..	35	53	61	75
(n) Total:	28.38	49.67	91.66	1,04.55	1,17.33	1,28.94
Percentage of (n) to total expenditure on Revenue Account	39.9	48.5	48.6	51.2	45.5	50.7

R=Revised

TABLE XXX
Proportion of State Taxes to Income 1960-61 and 1965-66

(In Rs.)

States by ranking order in 1960-61	Per capita income in 1960-61	Total State taxes per capita	Proportion of tax to income	Per capita income in 1965-66	Total State taxes per capita	Proportion of tax to income
West Bengal	436.69	14.39	3.30(11)	536.37	22.58	4.21(11)
Punjab	358.14	13.03	3.64(8)	446.93	23.68	5.30(7)
Kerala	281.68	12.22	4.34(4)	304.58	20.97	6.88(3)
Madras	263.28	11.85	4.50(3)	293.11	21.86	7.46(2)
Assam	253.43	10.69	4.18(5)	274.42	17.65	6.43(4)
Madhya Pradesh	250.49	8.59	3.43(10)	288.81	13.85	4.80(9)
Andhra Pradesh	230.56	11.50	4.99(2)	258.47	16.59	6.42(5)
Rajasthan	229.59	9.24	4.02(7)	272.30	16.08	5.91(6)
Uttar Pradesh	221.89	7.89	3.56(9)	253.41	11.53	4.55(10)
Orissa	201.24	4.91	2.44(12)	278.72	10.53	3.78(12)
Mysore	197.29	10.67	5.36(1)	226.32	17.70	7.82(1)
Bihar	169.40	7.04	4.16(6)	217.13	10.84	4.99(8)

Note : In 1965-66 the ranking order (as given in the brackets) of Madhya Pradesh, Orissa, Assam, Andhra Pradesh and Uttar Pradesh had changed.

Source : Figures are taken from *Reserve Bank of India Bulletins* of October 1962 and May 1966 also *Quarterly Economic Report of Indian Institute of Public Opinion*, Vol. VII, No. 1, July 1960, p. 24 as quoted by S. Chandrasekhar in *Economic and Political Weekly*, 1st June 1968.

TABLE XXXI

Growth and Pattern of West Bengal's Revenues : 1961-62 and 1965-66 to 1968-69

(Rs. crores)

State/ Years	Land revenue	Sales tax	Motor vehicles tax	Stamp and registra- tion	Other taxes and duties	Educa- tion	Medical and public health	Adminis- trative services	Forests	Total revenue receipts
1961-62	6.20 (6.10)	21.45 (21.09)	2.35 (2.31)	4.96 (4.88)	9.89 (9.72)	0.75 (0.74)	0.92 (0.90)	0.94 (0.92)	1.71 (1.68)	101.70 (100.00)
1965-66	7.02	45.38	5.60	8.63	14.77	0.64	0.91	2.00	2.28	169.82
1966-67	6.00	48.65	5.76	8.67	15.40	0.73	0.85	1.68	2.14	185.34
1967-68	8.00	58.34	6.50	10.39	17.81	0.74	0.99	1.86	2.40	234.77
1968-69 (Revised Estimate)	6.36 (2.97)	57.21 (26.70)	5.70 (2.66)	9.58 (4.47)	17.74 (8.28)	0.74 (0.35)	0.96 (0.45)	1.83 (0.85)	2.28 (1.06)	214.29 (100.00)

Note: Figures in brackets indicate percentage to the total revenue.

Sources: (1) 1961-62, 1965-66 and 1966-67 from conspectus of the budgets of the Central, State and Union Territory Governments.

(2) 1967-68 and 1968-69 figures from State budgets.

TABLE XXXII
Statewise Distribution of Assistance (Loans, Underwriting, Guarantee etc.)
sanctioned by the Financial Institutions as at the end of 1966-67
(Rs. lakhs)

<i>State</i>	<i>IFCI</i>	<i>ICICI</i>	<i>IDBI*</i>	<i>SFCS</i>	<i>LIC**</i>	<i>Total</i>
1. Andhra Pradesh	2260 (7.7)	927 (4.7)	1629 (7.2)	947 (6.2)	352 (1.8)	6115 (5.7)
2. Assam	668 (2.3)	190 (0.9)	12 (0.1)	602 (3.9)	806 (4.2)	2278 (2.1)
3. Bihar	1717 (5.9)	839 (4.2)	897 (3.9)	447 (2.9)	1880 (9.8)	5780 (5.4)
4. Gujarat	1797 (6.1)	2461 (12.3)	3406 (14.9)	641 (4.0)	1139 (5.9)	9414 (8.8)
5. Haryana	851 (2.9)	253 (1.3)	205 (0.9)	916@ (6.0)	74 (0.4)	2299 (2.2)
6. Kerala	1127 (3.8)	183 (1.0)	307 (1.3)	532 (3.5)	358 (1.9)	2517 (2.4)
7. Madhya Pradesh	714 (2.4)	339 (1.7)	372 (1.6)	730 (4.8)	506 (2.6)	2661 (2.5)
8. Madras	5415 (15.1)	2217 (11.1)	3405 (14.9)	4401 (28.8)	1183 (6.1)	15621 (14.7)
9. Maharashtra	5405 (18.5)	7382 (37.0)	7315 (32.1)	2368 (15.5)	5753 (29.9)	28223 (26.5)

(Continued)

10. Mysore	1514 (5.2)	1253 (6.3)	617 (2.7)	584 (3.8)	396 (2.1)	4364 (4.1)
11. Orissa	750 (2.6)	477 (2.4)	156 (0.7)	302 (2.0)	277 (1.4)	1962 (1.8)
12. Punjab	550 (1.9)	15 (0.1)	93 (0.4)	558@ (3.6)	40 (0.2)	1256 (1.2)
13. Rajasthan	1364 (4.7)	593 (3.0)	730 (3.2)	511 (3.3)	93 (0.5)	3291 (3.1)
14. Uttar Pradesh	2190 (7.5)	905 (4.5)	1156 (5.1)	587 (3.8)	664 (3.3)	5482 (5.2)
15. West Bengal	3593 (12.3)	1789 (9.0)	2175 (9.6)	1087 (7.1)	5329 (27.6)	13973 (13.1)
16. Jammu & Kashmir	— (—)	— (—)	— (—)	120 (0.8)	—	120 (0.1)
17. Union Territories	334 (1.1)	123 (0.6)	315 (1.4)	— (—)	445 (2.3)	1217 (1.1)
Total	29249 (100)	19956 (100)	22790 (100)	15303 (100)	19275 (100)	106573 (100)
Percentage	27.4	18.7	21.3	14.4	18.0	100.0

Note: Statewise break up of UTY's investment is not available. Figures in brackets are percentage to total.

*Figures relate to the year 1967-68 and include assistance mentioned in the form of refinance and rediscount.

**The amount of assistance sanctioned by LIC includes market purchases of shares and debentures and outstanding loans to private sector companies.

@Figures relate to gross assistance sanctioned.

Source: Report of the Industrial Licensing Policy Inquiry Committee.

TABLE XXXIII
Statement Showing Statewise Distribution of Total, Issued and
Rejected Applications for Industrial Licences for the period
1956 to 1966

States	Total Applications		Issued Licences		Rejected Applications	
	No.	% of Total	No.	% of Total	No.	% of Total
1	2	3	4	5	6	7
1. Andhra Pradesh	487	3.46	332	3.31	155	3.81
2. Assam	152	1.08	95	0.95	57	1.40
3. Maharashtra	3,645	25.88	2,741	27.37	905	22.24
4. Kerala	438	3.11	362	3.61	76	1.87
5. Madhya Pradesh	401	2.85	247	2.47	154	3.78
6. Madras	1263	8.97	970	9.68	293	7.20
7. Orissa	198	1.40	118	1.18	80	1.97
8. Punjab (including Haryana)	1050	7.46	632	6.31	418	10.27
9. Rajasthan	278	1.97	176	1.76	102	2.51
10. Uttar Pradesh	1087	7.72	672	6.71	415	10.20

(Continued)

11. West Bengal	2,296	16.30	1,649	16.46	647	15.90
12. Bihar	688	4.88	517	5.16	171	4.20
13. Mysore	420	2.98	327	3.26	93	2.29
14. Delhi	328	2.33	210	2.10	118	2.90
15. Gujarat	1,219	8.66	890	8.89	329	8.08
Others (excluding unclassified)	134	0.95	78	0.78	56	1.38
Total:	14,084	100.00	10,016	100.00	4,069	100.00

Note : (1) During 1956 to 1966 there were 7,294 rejected applications of which 3,225 applications have not been classified. The remaining 4,069 applications have been distributed Statewise of which the percentages are given in column 7.

(2) All issued licences have been classified.

Source : Report of the Industrial Licensing Policy Inquiry Committee.

TABLE XXXIV
Statewise Distribution of Bank Credit, Bank Credit per Office,
and Per Capita Bank Credit, 1961 and 1967

States	Bank Credit (Rs. lakhs)			Per capita Bank credit (in Rs.)	
	1961	Percent to total	1967	Percent to total	
Assam	502	0.4	943	0.3	4.2
Bihar	2,419	1.9	3,851	1.4	5.2
Haryana	—	—	2,094	0.8	—
Jammu & Kashmir	123	0.1	144	0.1	3.4
Kerala	3,083	2.4	7,107	2.6	18.2
Madhya Pradesh	2,625	2.0	5,889	2.2	8.1
Andhra Pradesh	4,810	3.7	9,435	3.5	13.4
Tamil Nadu	11,976	9.3	27,944	10.2	35.5
Maharashtra	38,401	29.9	88,592	32.4	97.0
Gujarat	7,903	6.1	16,297	6.0	38.4
Mysore	5,293	4.1	12,715	4.7	22.4
Orissa	543	0.4	1,186	0.4	3.1
Punjab	3,457	2.7	4,544	1.7	17.0
Rajasthan	1,567	1.2	3,051	1.1	7.8
Uttar Pradesh	7,604	5.9	11,083	4.1	10.3
West Bengal	32,625	25.4	61,901	22.5	93.5
Delhi	5,378	4.2	13,130	4.8	199.2
Others	302	0.2	3,518	1.2	—
Total : All India	128,611	100.0	273,424	100.0	29.3
					53.5

Source : Statistical Tables Relating to Banks in India for 1962 and 1967.

Appendix B

REPORT OF AN AGRO-ECONOMIC SURVEY* OF FOUR DISTRICTS OF WEST BENGAL

1. *Objects of the Survey*

The present survey was designed with a view to studying the impact, if any, of improved agricultural technologies on the farming practices in West Bengal and the secondary impact of any such developments on the life and living of the State's farming population.

2. *Sample Villages*

Four villages were selected for the survey in consultation with the research staff in the Agro-Economic Research Centre of Visva-Bharati, Santiniketan and the Indian Statistical Institute, Calcutta. In view of specific nature of the survey as type-studies, greater attention was devoted to the cognition of the physiognomy of development. Hence, two advanced villages were selected—one each from the districts of Birbhum and Burdwan. One village was selected from the extremely backward region in the tarai of Darjeeling district. The fourth—occupying a position in between the extremes of the spectrum—was selected from the district of 24-Parganas.

3. *The Main Findings*

The survey has revealed that except in the tarai village agriculture

*This Agro-Economic Survey of some West Bengal Districts was conducted in the first half of 1969 by the Public Relations Department of Indian Oxygen Limited. It was felt that the findings of this Survey have considerable relevance to the subject matter of this study on West Bengal and its report is therefore being given here in full.

in the three other villages has entered into a phase of transition. The farming population in these areas were found to be wide awake to the achievements of the new technologies and agricultural practices. They are broadly informed about the prospects and problems of the new practices. Cultivators who have the resources are not averse to experimentations with the new technologies and they are seldom discouraged by initial setbacks.

A new phenomenon in the West Bengal countryside is the emergence of a very thin stratum of gentlemen-farmers, some of whom have taken up cultivation as the sole interest and occupation. In some other cases, agriculture is only a subsidiary occupation in which various members of the family take a hand in turn.

Along with the improvement of agriculture and the resulting financial prosperity, the social and cultural life of, at least, the prosperous sections of the rural population have recorded some significant advancements. Durable consumer goods and status symbols like transistor radios, watches, bicycles—and in one village at least, guns—have come into vogue, along with the traditional status symbol like a pucca house.

Well-to-do farmers now save and accumulate for acquiring modern agricultural implements like a pump set or a spray and in some cases a tractor or a power tiller.

Through discreet inquiries, it was gathered that quite a good number of prosperous cultivators had accounts with either the local post office or the bank in the nearby town or the market centre.

From this modest survey, the main conclusion that has emerged is that agricultural revolution in West Bengal depends primarily on two principal factors—land relations and water. Wherever self-cultivation, instead of share-cropping, is the dominant mode of cultivation and water is available, the process of improvement has started and is accelerating. Indeed, these two need not be independent variables. It is quite possible that the availability of water by raising the productivity and profitability of agriculture on the basis of new technologies may induce landowners to take to self-cultivation by terminating the share-cropping arrangements.

4. *Limitations of the Statistical Data*

While the broad conclusions of the survey have been checked with similar studies made by other agencies and experts and have been found to be in agreement with them, the statistical measurements have to be accepted with great caution. Surveys of this nature have to be conducted over a considerable period of time and individual replies have to be checked repeatedly with the other information received from diverse sources. The field work of the present survey was completed in the course of one month.

Villagers are known to be particularly secretive about their wealth and acquisition. Under the present regime, the substantial owners of land are particularly apprehensive about the threat of dispossession of their holdings exceeding the ceiling imposed by law. As a result, such farmers have invariably made understatements about their land-holdings. An interesting example of the extent of this understatement is given below.

During the investigation, the richest family in the village of Sahajapur in the district of Birbhum recorded its holding at 18 acres only. But when afterwards a member of the family proudly showed us round the barnyard, the stacks of straw, in terms of his own conversion rates, (straw into paddy and paddy into land) indicated a total farm area of 64 acres.

I. SAHAJAPUR (BIRBHUM)

The village Sahajapur is about four miles from the town of Bolpur in the district of Birbhum, with which it is connected by an all-weather metalled road. The village lies on the bus route from Bolpur to the market town of Kirnahar.

The total cultivated area of the village is estimated at 236 acres. Almost the entire land is under paddy. The other crops, raised on small scale, are : wheat (about 2 acres), potato (about 3 acres), pulses (about 8 acres), and sugarcane (about 5 acres).

About 70 per cent of the farmland is within the command area of the irrigation canal. Besides, there are tanks of various sizes. But, most of them badly need reclamation.

There are 136 families in the village. Of them, 29 families are engaged in household industries (like weaving, husking, etc.) or trade or profession including non-agricultural labour. Of the rest, 51 families belong to the category of landless agricultural labour and 10 families are landless share-croppers. All the above strata we have excluded from the survey. *We have covered the remaining 46 families possessing land—from half an acre upwards.*

(i) *Improved Agricultural Practices*

In recent years improved agricultural practices have been increasingly coming into vogue in this village. One pump set and two hand-operated spray machines purchased by some more prosperous households are being pressed into service by many other farmers by rotation. Another indication of the technological progress is the use of fertilizers and pesticides. During the current agricultural year, the total consumption by the 46 families of the inputs were :

Ammonia	—	5,706 kgs
Superphosphates	—	4,347 kgs
Mixed fertilizers	—	998 kgs
Oilcakes	—	7,105 kgs
Organic manures	—	6,181 mds
Folidol	—	6 litres
Endryne	—	3.5 litres
Gamaxene	—	128 kgs

Some of the more enterprising farmers of the village have started experimenting on a small scale with high-yielding varieties of paddy. There is a *Gramsevak* posted in the village. The farmers, many of whom have come to possess transistor radio sets, are avid listeners of the rural broadcasts. They systematically compare the results obtained by themselves with what they hear on the radio and from the *Gramsevak*.

(ii) *Impact on Living Standard*

Along with the increasing prosperity of agriculture, the social and cultural life of the village rich is undergoing significant changes.

Even a short time ago, the villagers were afraid on account of a local superstition of a curse on any one who dared to build a pucca house in the village. But during the last three years, three pucca houses have come up and a few more households are presently engaged in burning bricks for construction.

During the last 10 years, the 46 landowning families have, between them, acquired 10 transistors, 19 bicycles, 13 watches and 3 guns.

It is a sign of the time that a young member of a farming family is now in England qualifying for MRCP.

There are quite a few young men in terelyne roaming about the village paths, some of them have passed out of Polytechnic at Burdwan, but are unable to get a job. They are not enthusiastic of taking part in agricultural operations based on old and traditional implements. If the farmers ever went in for mechanisation, they would gladly yoke themselves to the job, they said.

The village has got two primary and one secondary (up to Class X) schools, besides three *pathshalas*. It receives three copies of daily newspapers and the same number of periodicals.

(iii) *Farming Pattern*

It will be seen from Table A that landownership within the landowning population (i. e., excluding the landless labour and share-cropping families) is highly uneven. Of the 46 landowning families, 26 families at the bottom or about 57 p.c. of the total hold in aggregate 52 acres or 22 per cent of the area owned. The average holding per family in this stratum is exactly 2 acres. The middle stratum of 13 families (28 per

cent) hold about 87 acres or 36 p. c. of the area owned. The average holding per family in this stratum works out at about 6.6 acres. The 7 families at the top, however, comprise about 15 p.c. of the number of families but own 101 acres or 42 p. c. of the total land. Their average holding is 14.4 acres per family.

An interesting facet of the new developments is the importance of self-cultivation with the help of hired labour in the highest brackets of landholding. While the small and middle categories of land-owners lease out 19 p. c. and 25 p. c. of their holdings respectively on crop-sharing basis, the corresponding proportion for the top stratum is 15 p. c. only. Naturally, the average number of permanent farm servants employed by the families in the top stratum is 4 as against 0.42 for the lowest and 1.5 for the middle strata. Similarly, the average number of man-days of agricultural labour employed by the top stratum is 203 as against 120 and 40 for the middle and bottom strata.

Thus increase in self-cultivation appears to be in agreement with the secular trend as noted by the Agro-Economic Research Centre of Visva-Bharati which had conducted two surveys of this village in 1956 and 1961. "The number of agricultural labour households as well as the number of workers engaged in it have increased considerably; and that in the occupation group 'cultivation of land wholly/mainly unowned' both the number of households and the number of workers have declined largely. *This phenomenon is due to the fact that during this period the share-croppers have been evicted from the land by the owners who have resumed land for personal cultivation.*" (*Studies in Rural Change : Sahajapur : West Bengal, 1956-1961*, p. 23)

II. DIHIPARA—A SUPPLEMENTARY SURVEY

In order to test the validity of the data received from the village Sahajapur we conducted a supplementary sample survey of 22 families from the neighbouring village of Dihipara (125 families in total) just across the Bolpur-Kirnahar bus route—equally divided between the top and middle strata. It will be seen that the two villages reveal the same pattern of land and agrarian relations. Only the families of the second village appear to be relatively more prosperous and forward looking compared to their counterpart in Sahajapur.

The total consumption of fertilisers of these 22 families are higher than the aggregate for the 46 families in Sahajapur.

Ammonia	—	6,280 kgs
Superphosphates	—	6,985 kgs
Oilcakes	—	9,624 kgs

Organic Manures	—	6,100 mds
Mixed fertiliser	—	400 mds

In term of status symbols and durable consumer goods also, this village outshines its neighbour.

In course of the last 10 years, these 22 families have between them constructed 6 pucca houses and acquired 14 transistor radios, 10 bicycles, and 25 watches.

One of the prosperous farmers of this village asked for and secured a catalogue of tractors, one of which he intends to purchase soon. A few others are saving money for buying a pumpset on partnership basis.

III. GANTAR (BURDWAN)

Gantar is a village under the P. S. Memari in the sadar sub-division of Burdwan—a little over three miles from the Memari railway station with which it is connected by five bus routes over a well-maintained metalled road. A channel of the DVC canal with lock-gates to regulate the supply of water passes through the village. Recently posts have been set up for connecting the village with the DVC power grid. The office of the Agricultural Credit Co-operative Society in the village has got a telephone connection. (A rich gentleman-farmer in the next village which is already electrified has got a telephone in his residence along with electric lights and fans).

There are 268 families with a total population of 1818 at present. Apart from 6 families, all of the rest are engaged in agriculture. At the one end, 152 families are landless; at the other, only 8 families possess land in the range of 10 acres and above.

Out of a total area of 311 acres, 261 acres are devoted to cultivation, of which again 171 acres are used exclusively for cereal cultivation. The other uses of land are:—potato 50 acres, jute 30 acres and sugar-cane 10 acres.

(i) *Improved Practices*

Progressive farmers of the village have been resorting to improved methods of cultivation for about a decade. A tractor has been in use in the village since 1959. The other improved agricultural implements in use are: power tillers, hand operated sprays, duster, seed drills, wheel hoe (for weeding jute fields).

This is the second season that high yielding varieties of paddy seeds have been used. About 50 acres have been placed under these varieties in the present season.

Chemical fertilisers are used on a considerable scale. The local agricultural credit society finances a part of the farmers' expenditure

on this head by providing credit to the extent of Rs. 40,000.

Some of the neighbouring villages seem to have made greater technological progress. Two adjacent villages supplied with irrigation facilities from two deep tubewells have gone in for high-yielding paddy varieties in a far bigger way. We saw a large area—of about 100 acres—of lush green planted with IR 8. In another village two shallow tubewells are being installed.

The roadway that passes through the village are frequented by not only heavy trucks carrying high loads of potatoes to the numerous cold storages that dot this area, but also by private cars, motor cycles and scooters owned by prosperous households in the neighbourhood. We also saw a trailer carrying a high load of bagasse.

(ii) *Impact on Living Standards*

There are 25 pucca buildings in the village. Of these 14 were constructed during the last decade by the prosperous farmers.

There are 20 transistor radio sets, of which 18 were acquired during the last five years.

There are 23 bicycles in the village.

Apart from the ten tubewells sunk by the Gram Panchayat, 14 additional tubewells have been sunk by the villagers themselves in their respective houses for the supply of drinking water. 13 of these were sunk during the last 10 years.

The village has a flourishing cultural life. There are two schools—a High School with 456 students on the rolls and a primary school with 227 students. A number of village boys attend colleges at Burdwan as commuters.

It has a small public library and a sporting club.

A number of daily newspapers including a copy of the English daily *Amrita Bazar Patrika* are subscribed for.

(iii) *Farming Pattern*

The land-ownership broadly follows the uneven pattern revealed in the Birbhum villages. A significant feature of this village, however, is the total absence of share-cropping in the top brackets. None of the 8 families owning land of 10 acres and above lease out any portion of their holdings. The average number of permanent farm servants and seasonal agricultural labour employed by the families in this stratum at 6 and 517 respectively are much higher than the corresponding figures for the Birbhum villages.

IV. GHUNI (24 PARGANAS)

The village Ghuni under the Barasat sub-division of the

24-Parganas is about two miles to the east of the Calcutta-Dum Dum super highway. It lies about a mile to the south-east of the terminus of the 30C bus route which connects the area with the city of Calcutta. It is a large village holding about 300 families.

A broad social stratification of the families is given below :

	<i>No. of families</i>
Landless agricultural labour ..	60
Dwarf peasants holding very small parcels of land and engaged mainly in share-cropping ..	150
Household industries—bidi and cane work ..	42
Cultivating (wholly or mainly land-owning) ..	98

Of the 98 families belonging to the last category, our survey has covered 47 families.

(i) *Improved Practices*

Three of these families have taken up cultivation of high-yielding varieties of paddy like IR 8, Taichung, etc. Two of these families have purchased pump sets this year. There is a tractor in use in a village a few miles away which had been hired for ploughing a part of the village fields two years ago. It is still available for hire, but as the 1968 flood damaged the crop and caused great economic loss to the farmers of this area, it was not indented during the past season.

The drainage canal carrying the nitrogen-rich outfall from Calcutta to Kulti passes along the southern border of the village. There are a number of lock-gates which, if opened, can irrigate the fields of this village. The peasants have been building up a movement under the leadership of two progressive gentlemen-farmers for the grant of this facility—if necessary, on payment at suitable rates. If this demand is conceded, then this area can undergo a revolutionary change in farming practices in the first instance and social and cultural pattern in consequence.

At present, improved practices are confined to a small number of families only—three families to be exact—two of whom are Hindu bhadralogs from East Bengal who have taken up farming after purchasing land from the original Muslim peasants. The rest of the rural population are still largely inert and tradition-bound. This situation is also reflected in relatively high prevalence of share-cropping in this village.

(ii) *Living Standard*

Even then, 12 transistors have penetrated this village and 7 new pucca houses have been built. There is a primary school and night school in the village. There are college students even in kisan families. There is a small library and two sport clubs in the village.

Thirteen copies of daily papers, including a copy of *The Statesman*, come to this village besides 9 periodicals in Bengali.

V. GOURCHARAN MOUZA (DARJEELING)

Gourcharan Mouza in the Siliguri sub-division of Darjeeling district is situated in the area which has now attained limelight in connection with the Naxalbari movement. It presents a sharp contrast to the four other villages surveyed in western and southern parts of West Bengal.

The land in this area is of a very low fertility and is totally dependent on rainfall, there being no arrangement for irrigation. The total cultivated area of the village is 250 acres, of which exactly half is occupied by a pineapple plantation. About 25 acres are usually cultivated with jute and the rest are put under a single crop of local variety of Bhadai paddy. Even in good years of sufficient rainfall the produce barely exceeds 5/6 mds. of paddy per bigha.

The entire area is owned by five families living in towns. All the 51 households in the village—all belonging to tribal community—are share-croppers with small parcels of land or none at all. Six persons work in a nearby timber mill and another is a Dafadar in the Panchayat. The rest are share-croppers.

There is no school or club in the village. No newspaper reaches it. There are no transistor radio sets. The only new acquisitions are three bicycles purchased during the last three years.

One of the land-owners has constructed recently a two-storied wooden house.

TABLE A
Sahajapur (Birbhum)

Size class according to land owned	No. of households	Area owned in acres	Area leased out in acres	No. of permanent farm servants	Seasonal labour employed (man-days per year)	Acquisition during last 10 years (No.)				
						Transistor radio	Bicycles	Watches	Guns	Pucca houses built
Above half acre but less than 5 acres	26 (56.5)	52.1 (21.7)	9.8 (20.9)	11 (18.6)	1,039 (25.9)	6	10	3	—	—
Above 5 acres but less than 10 acres	13 (28.2)	86.6 (36.2)	22.0 (47.0)	20 (33.9)	1,560 (38.8)	2	5	5	1	1
Above 10 acres	7 (15.3)	101 (42.1)	15.0 (32.1)	28 (47.5)	1,420 (35.3)	2	4	5	2	2
Total :	46 (100.0)	239.7 (100.0)	46.8 (100.0)	59 (100.0)	4,019 (100.0)	10	19	13	3	3

(Figures in brackets represent percentages.)

TABLE B
Dhipara (Birbhum)

Size class according to land owned	No. of households	Area owned in acres	Area leased out in acres	No. of permanent farm servants	Seasonal labour employed (man-days per year)	Acquisition during last 10 years (Nos.)			
						Transistor radios	Bicycles	Watches	Guns
Above half acre but less than 5 acres									
	11 (50.0)	63.6 (26.9)	4.0 (20.8)	18 (36.0)	1,850 (29.9)	5	5	13	—
Above 5 acres but less than 10 acres									
	11 (50.0)	173.2 (73.1)	15.3 (79.2)	32 (64.0)	4,353 (70.1)	9	5	12	—
Above 10 acres									
	22 (100.0)	236.8 (100.0)	19.3 (100.0)	50 (100.0)	6,203 (100.0)	14	10	25	—
Total :									
	22 (100.0)	236.8 (100.0)	19.3 (100.0)	50 (100.0)	6,203 (100.0)	14	10	25	—
									6

(Figures in brackets represent percentages).

TABLE C
Gantar (Burdwan)

Size class according to land owned	No. of households	Area owned in acres	Area leased out in acres	No. of permanent farm servants	Seasonal labour employed (man-days per year)	Acquisition during last 10 years (Nos.)				
						Transistor radios	Bicycles	Watches	Guns	Pucca houses built
Above half acre but less than 5 acres	53 (58.2)	113.33 (26.3)	10.8 (20.8)	17 (10.9)	2,800 (26.8)					
Above 5 acres but less than 10 acres	30 (33.0)	191.66 (44.7)	41.0 (79.2)	93 (58.8)	3,500 (33.5)	20	23	—	—	14
Above 10 acres	8 (8.8)	124.00 (29.00)	—	48 (30.3)	(4,140) (39.7)					
Total :	91 (100.0)	428.99* (100.0)	51.8 (100.0)	158 (100.0)	10,440 (100.0)					

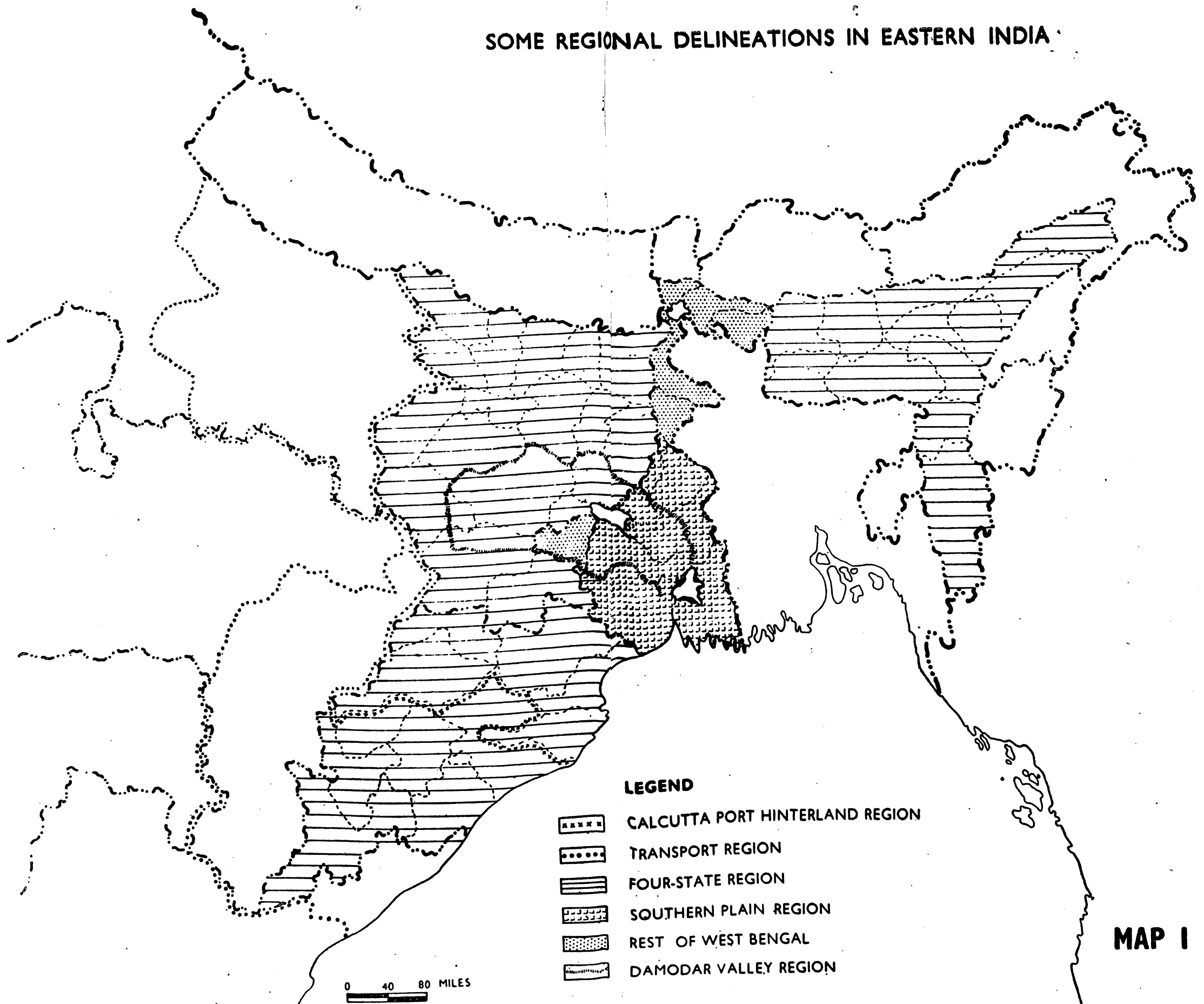
*This figure exceeds the total cultivated area of the village mentioned in the report, as part of land area owned included in these figures are located in the neighbouring villages.
(Figures in brackets represent percentages.)

TABLE D
Chuni (24-Parganas)

Size class according to land owned	No. of households	Area owned in acres	Area leased out in acres	No. of permanent farm servants	Seasonal labour employed (man-days per year)	Acquisition during last 10 years (Nos.)				
						Transistor radios	Bicycles	Watches	Guns	Pucca houses built
Above half acre but less than 5 acres	15 (31.8)	58 (16.8)	nil	nil	1,297	5	9	—	—	1
Above 5 acres but less than 10 acres	22 (47.0)	130 (37.6)	6 (7.0)	5 (16.1)	3,003 (47.2)	5	16	—	—	6
Above 10 acres	10 (21.2)	157 (45.6)	79 (93.0)	26 (83.9)	2,057 (32.3)	2	2	—	—	—
Total :	47 (100.0)	345 (100.0)	85 (100.0)	31 (100.0)	6,357 (100.0)	12	27	—	—	7

(Figures in brackets represent percentages.)

SOME REGIONAL DELINEATIONS IN EASTERN INDIA



MAP I

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